

Courses having focus on employability/ entrepreneurship/ skill development



Maharaja Ganga Singh University

A State University of Higher Education for Dignity and Self-Reliance

Approved by UGC under Section 12B of the UGC Act 1956

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<https://mgsubikaner.ac.in/>

SCHEME OF EXAMINATION AND SYLLABUS

FACULTY OF COMPUTER

**Masters in Computer Science (Semester System)
Choice Based Credit System
EXAMINATION 2021-22**

**Session 2020-21
Exam 2021 and 2022**



@M.G.S. UNIVERSITY, BIKANER

SCHEME OF EXAMINATION

1. ELIGIBILITY FOR ADMISSION

Graduates possessing 50% marks in any faculty of any statutory university shall be eligible for admission to the M.Sc. Computer Science Course (Relaxation to SC/ST etc. as per Prevailing Rules)

2. PASS CRITERIA

For passing in the examination, a candidate is required to obtain at least 25% in each paper (Internal + External) and 36% marks in the total aggregate in theory and practical separately (in each semester examination).

3. CLASSIFICATION OF SUCCESSFUL CANDIDATE

Division	Total Marks
First Division	60% and above
Second Division	Above 48% and below 60%
Pass	Above 36% and below 48%
Fail	Below 36%

4. INSTRUCTIONS TO PAPER SETTER

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consists of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus).

The word limit of part A, B and C are 50, 200 and 500 respectively

5. INSTRUCTIONS FOT PRACTICAL EXAMINATION

Marks Distribution for Practical Exam -

1. Each practical exam is to be conducted by two examiners one External and one Internal. External examiner should be senior lecturer from jurisdiction of other universities. Marks distribution for external practical of 40 marks is as under

a) Practical Examination exercise of 3 questions	30 marks
b) Viva-Voce	5 marks
c) Laboratory Exercise File	5 marks
2. Marks distribution for External Project report of 40 marks is as under
 - a. External Evaluation-
 - i. Research Project/ Case Study 25 marks
 - ii. Presentation 10 marks
 - iii. External Viva Voce 5 marks
 - b. Internal Evaluation- Dissertation 10 Marks

6. INSTRUCTIONS FOR STUDENTS

- The student has to complete two months career oriented summer training from any firm/organization. If the student does not get chance to go for training, he/she can chose a research topic and can complete dissertation under the supervision of any of the faculty in his college.
- The student who has opt training, has to provide a signed certificate from the firm/organization authority stating that the student has spent two months as a trainee in his organization/firm. The student who have opt dissertation, has to submit his/her dissertation report with a certificate from his supervisor.

- In both the cases student has to present his work in front of all the faculty members and fellow students at the starting of the next session.
- In terms of credits, every one hour session of L amounts to 1 credit per semester and a minimum of two hour session of T or P amounts to 1 credit per semester.

*** An Academic/ Industrial Tour shall be organized by the college/department in every session. A Tour Report shall be prepared and submitted by the students after a study tour to industries/academic institutions of repute.**

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EXAMINATION 2020-21

Teaching and Examination scheme for
M.Sc. Computer Science (Semester System)
Examination 2021
Session 2020-21

Semester I									
Course Code	Course Name	Exam Hours	Maximum Marks		Minimum Passing Marks	Credit	L	T	P
			Internal Marks	External Marks					
Theory Papers									
MCS 101 (CC)	Mathematics for Computer Science	3	10	40	13 (25%)	5	4	1	0
MCS 102 (CC)	Internet Programming	3	10	40	13 (25%)	5	4	1	0
MCS 103 (CC)	Computer Organization	3	10	40	13 (25%)	5	4	1	0
MCS 104 (CC)	C++ Programming	3	10	40	13 (25%)	5	4	1	0
MCS 105 (CC)	Combined Practical	6	20	80	25 (25%)	5	0	0	5
			60	240		25			
Total of Theory (Internal 60 + External 240)				300	108 (36% aggregate)				

CC=Core Compulsory

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EXAMINATION 2020-21

Teaching and Examination scheme for
M.Sc. Computer Science (Semester System)
Examination 2021
Session 2020-21

Semester II									
Paper Code	Paper Name	Exam Hours	Maximum Marks		Minimum Passing Marks	Credits	L	T	P
			Internal Marks	External Marks					
Theory Papers									
MCS 201 (CC)	Database Management System	3	10	40	13 (25%)	5	4	1	0
MCS 202 (CC)	Data Communication and Networking	3	10	40	13 (25%)	5	4	1	0
MCS 203 (CC)	Operating System	3	10	40	13 (25%)	5	4	1	0
MCS 204 (CC)	PHP	3	10	40	13 (25%)	5	4	1	0
MCS 205 (CC)	Combined Practical	6	20	80	25 (25%)	5	0	0	5
			60	240		25			
Total of Theory (Internal 60 + External 240)				300	108 (36% aggregate)				

CC=Core Compulsory

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EXAMINATION 2020-21

Teaching and Examination scheme for
M.Sc. Computer Science (Semester System)
Examination 2022
Session 2021-22

Semester III									
Paper Code	Paper Name	Exam Hours	Maximum Marks		Minimum Passing Marks	Credits	L	T	P
			Internal Marks	External Marks					
Theory Papers									
MCS 301 (CC)	Data Structures	3	10	40	13 (25%)	5	4	1	0
MCS 302 (CE)	a) Java b) Python	3	10	40	13 (25%)	5	4	1	0
MCS 303 (CE)	a) Software Engineering & Research Methodology b) Artificial Intelligence	3	10	40	13 (25%)	5	4	1	0
MCS 304 (CC)	Combined Practical	6	20	80	25 (25%)	5	0	0	5
MCS 305 (EO)	a) Data Analysis Using R a) Introduction to LaTeX	3	10	40	13 (25%)	5	4	1	0
			60	240		25			
Grand Total (Internal 60 + External 240)				300	108 (36% aggregate)				

CC=Core Compulsory, CE= Core Elective, EO = Elective Open

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EXAMINATION 2020-21

Teaching and Examination scheme for
M.Sc. Computer Science (Semester System)
Examination 2022
Session 2021-22

Semester IV									
Paper Code	Paper Name	Exam Hours	Maximum Marks		Minimum Passing Marks	Credits	L	T	P
			Internal Marks	External Marks					
Theory Papers									
MCS 401 (CC)	a) Data Mining b) Computer Graphics & Multimedia	3	10	40	13 (25%)	5	4	1	0
MCS 402 (CE)	(a) Android Programming (b) Advanced Web Programming	3	10	40	13 (25%)	5	4	1	0
MCS 403 (CE)	a) Cloud Computing b) Internet of Things	3	10	40	13 (25%)	5	4	1	0
MCS 404 (CC)	Combined Practical	6	20	80	25 (25%)	5	0	0	5
MCS 405 (EO)	(a) Research Project (b) Case Study	3	10	40	13 (25%)	5	4	1	0
			60	240		25			
Grand Theory (Internal 60 + External 240)				300	108 (36% aggregate)				

CC=Core Compulsory, CE= Core Elective, EO = Elective Open

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EXAMINATION 2021-22

Semester I

Paper Code:MCS-101

Paper Name: Mathematics for Computer Science

Objective – After successful completion of this course, the student will have the basic knowledge of Mathematics that is required for better understanding of other computer science courses.

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

Credit: 5

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Note: Non-Scientific Calculator may be allowed in end-semester examination.

Unit – I

Sets: different types of sets, set operations; Basic Counting Principles, Pigeonhole Principle, Binomial Coefficients, Binomial Theorem, Permutations, Combinations; **Matrices:** addition, multiplication; **Vectors:** Position vector, addition, subtraction and products of vectors.

Unit - II

Mathematical Induction; **Logic:** Propositions and logical operations, Conditional statements, Tautologies and Contradictions, Logical Equivalence, quantifiers.

Unit - III

Relations: Representation of Relations, Properties of relations, transitive closure; Ordered Sets: poset, Properties, Hasse Diagram, Extremal elements of posets ; **Functions:** Types of Functions, Asymptotic notations; Co-ordinate Systems: representation of points, straight lines, standard equation of circles.

Suggested Readings

1. Discrete Mathematics and its applications by K.H. Rosen, seventh edition
2. Discrete Mathematical Structures by Kolman, Busby and Ross, Sixth Edition, PHI.
3. Schaum's Outline Of Theory and Problems of Discrete Mathematics, Third Edition. SEYMOUR LIPSCHUTZ
4. NCERT Mathematics textbook for class XI and XII
5. Elements of Discrete Mathematics, TMH, C L Liu
6. Foundation Mathematics for Computer Science: A Visual Approach, John Vince, Springer
7. Calculus and Analytic Geometry, George B. Thomas and Ross L. Finney, Addison Wesley

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EXAMINATION 2021-22

Paper Code:MCS-102

Paper Name : Internet Programming

Objective - After successful completion of this course, the student will understand, analyze and apply the role languages like HTML, CSS, JavaScript and protocols in the workings of web and websites.

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

Credit: 5

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consists of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Unit I

Internet Basics: Evolution of Internet, Basic internet terms and applications. ISP, Anatomy of an e-mail Message, basic of sending and receiving, E-mail Protocol; Mailing List-Subscribing, Unsubscribing. Introduction to World Wide Web and its work, Web Browsers, Search Engine, Downloading, Hyper Text Transfer Protocol (HTTP), URL, Web Servers, FTP, Web publishing- Domain Name Registration, Space on Host Server for Web Site,Maintain and Updating.

Unit - II

HTML: Elements of HTML & Syntax, Comments, Headings, Paragraph, Span, Pre Tags, Backgrounds, Formatting tags, Images, Hyperlinks, div tag, List Type and its Tags, Table Layout, div, frame, Use of Forms in Web Pages. CSS:Introduction to Cascading Style Sheets, Types of Style Sheets (Inline, Internal and External), using Id andClasses, CSS properties: Background Properties, Box Model Properties, Margin, Padding, List Properties, Border Properties, Positioning Properties,

Unit - III

Java Script: Introduction to Client Side Scripting, Introduction to Java Script, Comments, Variables in JS, Global Variables, Data types, Operators in JS, Conditions Statements (If, If Else, Switch), Java Script Loops (For Loop, While Loop, Do While Loop), JS Popup Boxes (Alert, Prompt, Confirm), JS Events, Onload, Onunload, Onsubmit, OnFocus, Onchange Event, Onblur Event, Onmouseover, Onclick, Ondblclick Events, JS Arrays, Working with Arrays, JS Objects, Window object, Document object, JS Functions, getElementById, innerHTML property, inner Text property, form validation, email validation.

Suggested Readings

1. Thomas A. Powell , "HTML: The Complete Reference", Osborne/McGraw-Hill
2. Deitel, Deitel and Nieto : Internet & WWW. How to program, 2nd Edition, Pearson Education Asia.
3. E Stephen Mack, Janan Platt : HTML 4.0 , No Experience Required, 1998, BPB Publications.
4. "HTML Complete" by Sybex, BPB Publications, 2001.

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5. Internet and Web Page Designing By V.K Jain (BPB)
6. Web Enabled Commercial Application Development Using HTML, DHTML ,
java script, Perl CGI By Ivan Bayross (BPB)

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Paper Code:MCS-103

Paper Name : Computer Organization

Objective - After successful completion of this course, the student will understand basic computer organization, design and micro-operations, understanding of CPU functioning and computer arithmetic, learning techniques of memory organization and 8085 Microprocessor.

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

Credit: 5

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consists of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Note: Non-Scientific Calculator may be allowed in end-semester examination.

Unit I

Components of a Computer: Processor, Memory, Input-Output Unit, Difference between Organization and Architecture, Hardware Software Interaction. **Number System:** Concept of Bit and Byte, types and conversion. **Complements:** 1's complement, 2's complement. **Binary Arithmetic:** Addition, overflow, subtraction, multiplication (booth's algorithm) and division algorithm. **Logic gates:** Boolean Algebra, Map Simplification.

Unit II

Combinational circuits: Half Adder, Full Adder, Decoders, Multiplexers. **Sequential circuits:** Flip Flops- SR, JK, D, T Flip-Flop, Excitation Tables, State Diagram, State Table,, Registers, Counters.

Input Output Organization:Peripheral devices, I/O Interface, Asynchronous Data Transfer, Modes of Data Transfer, Priority Interrupt, Direct Memory Access, I/O Processor.

Memory Organization:Types and capacity of Memory, Memory Hierarchy, Associative Memory, Buffer, Cache Memory, Virtual Memory.

Unit III

Intel 8085 Microprocessor:Introduction, ALU, Timing and Control Unit, Register Set, Data and Address Bus, Addressing modes, Complete Intel 8085 Instruction set, Instruction format, Opcode and Operand, Word Size, Instruction Cycle, Pin Configuration, Intel 8085 programs.

Suggested Readings

1. Computer System Architecture, By M. Morris Mano (Pearson, Prentice Hall)
2. J.P. Hayes, "Computer Architecture & Organization", Tata McGraw Hill
3. Digital Computer Electronics By Malvino Leach, Jerald A. Brown(McGraw Hill)

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4. Microprocessor Architecture, Programming, and Application With the 8085 By Ramesh Gaonkar (PENRAM)
5. Fundamentals of Microprocessor and Microcomputes By B.Ram (Danpat Rai Publications)

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Paper Code: MCS-104

Paper Name : C++ Programming

Objective – After successful completion of this course student will have an understanding for the concepts of object oriented programming and a practical hand to solve the various problems using C++ programming language in a professional way.

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

Credit: 5

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Unit I

Object Oriented System Object Oriented Paradigm: need, characteristics, applications. Basics of C++, branching, looping and jump statements. **Functions** : need, types, passing arguments by value and reference, recursive function, pointers and functions. **Arrays**: need, types, array and function, array and pointers.

Unit II

Class: Basics, static data members, Inline Function, Constructors and Destructors: need, types, usage, **Inheritance** - need, usage, types, compile time and run time polymorphism, overloading and overriding, virtual function, friend function, abstract class. **Operator overloading**: need, rules, through member function and through friend function.

Unit III

String handling, String class, **Templates, Additional Features for C++ 11, C++14 and C++17** Searching and Sorting: **Searching**: Linear Search, Binary Search. **Sorting**: Insertion Sort, Selection Sort, Quick Sort, Bubble Sort, Heap Sort, Shell Sort, Merge sort, Radix Sort, Counting Sort, Bucket Sort.

Suggested Readings

1. Object Oriented Programming With C++ By E. Balagurusamy (Tata Mcgraw Hill)
2. C++ The Complete Reference By Herbert Schildt (Tata Mcgraw Hill)
3. Object Oriented Programming With C++ By Schaum Series (Tata Mcgraw Hill)
4. C++11 for Programmers (Deitel Developer) by Paul J. Deitel (Author), Harvey M. Deitel, Prentice Hall; 2nd edition
5. Professional C++ by Marc Gregoire, Nicholas A. Solter and Scott J. Kleper (Goodreads Publications)
6. A Tour of C++ by Bjarne Stroustrup, 2018
7. C++17 in Detail by Bartłomiej Filipek

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8.

Paper Code: MCS-201

Paper Name : Database Management System

Objective – The aim of this course is to furnish students with the knowledge about back end of software systems. After completing this course, the students will be well versed with the required theoretical and practical aspects of designing, creating and using a database.

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

Credit: 5

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consists of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Unit I

Introduction: Charecteristics of database approach, Advantages, Database system architecture, Overview of different types of Data Models and data independence, Schemas and instances, Databse languges and interfaces; **E-R Model** : Entities, Attributes,keys, Relationships, Roles, Dependencies, E-R Diagram; Normalization: Definition, Functional dependencies and inference rules, 1NF, 2NF, 3NF and BCNF.

Unit II

Introduction to Relational model, Constraints: Domain, Key, Entity integrity, Referential integrity; Keys: Primary, Super, Candidate, Foreign; **Relational algebra**: select, project, union, intersection, minus, cross product, different types of join , division operations; aggregate functions and grouping; **SQL**: Data Types, statements: select, insert, update,delete, create, alter, drop; views, SQL algebraic operations, nested queries; Stored procedures: Advantages, Variables, creating and calling procedures, if and case statements, loops, Cursors, Functions, Triggers.

Unit III

Transactions processing: Definition , desirable properties of transactions, serial and non-serial schedules ,concept of serialazability , conflict-serializable schedules; **Concurrency Control:** Two-phase locking techniques, dealing with Deadlock and starvation, deadlock prevention protocols, basic timestamp ordering algorithm; Overview of database recovery techniques; concept of data warehousing.

Suggested Readings

1. Fundamentals of Database Systems,Ramez A. Elmasri, Shamkant Navathe,5th Ed(Pearson)
2. Database System Concepts By Korth, Silberschatz, Sudarshan (Mcgraw Hill)
3. An Introduction to Database Systems By Bipin C. Desai (Galgotia Publication.)
4. SQL, PL/SQL Programming By Ivan Bayross (BPB)
5. Commercial Application Development Using Oracle Developer 2000 By Ivan Bayross (BPB)

Web Resources

1. <http://www.mysqltutorial.org/mysql-stored-procedure-tutorial.aspx>

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Paper Code: MCS-202

Paper Name : Data Communication and Networking

Objective – After successful completion of this course student will have an understanding of network, concepts transmission media and realize and compare different LAN topologies, implement and compare the performance of different Layer protocols and cyber security.

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

Credit: 5

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consists of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Unit - I

Data Communication and Networking: Overview, Network Types, LAN Technologies, Topologies, Models- OSI Model, TCP/IP Stack, Security

Physical Layer: Introduction, Impairments, Performance, Digital Transmission, modes, digital to digital, analog to digital, Analog Transmission, digital to analog, analog to analog, Transmission media, Wireless Transmission, Multiplexing, FDM, TDM, CDM, WDM,

Switching techniques: Circuit Switching, Packet switching, Datagram, Virtual circuit and Permanent Virtual Circuit, Connectionless and connection oriented communication, Message switching,

Unit - II

Data Link Layer: Introduction, Error detection and Correction, Data Link Control: Line Discipline- Enq/Ack, Poll/Select, **Flow Control** : Stop And Wait, Sliding Window, **Error Control** : ARQ, Stop and Wait ARQ, Sliding Window ARQ.

Network Layer: Introduction, Network Addressing, Routing, Internetworking, Tunneling, Packet Fragmentation, Network Layer Protocols, ARP, ICMP, IPv4, IPv6

Transport Layer: Introduction, Function, End to end communication, Transmission Control Protocol, User Datagram Protocol

Application Layer: Introduction, Client-Server Model, Application Protocols, Network Services

Unit - III

Cyber Security: definition, cybercrime and information security, cybercriminals, classification of cybercrime. Cyber offences: categories of cybercrime.

Tools and methods used in cybercrime: phishing, types of phishing, types and techniques of ID theft, password cracking, keyloggers and spywares, backdoors, steganography, DoS, SQL Injection.

Cybercrime on mobile and wireless devices: attacks on wireless networks, Authentication security service, attacks on mobile phones. Cyber Law, The Indian IT Act, Digital Signatures, Anti- Cybercrime Strategies, Cyberterrorism, Indian ITA 2000.

Suggested Readings

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1. Cyber Security by Nina Godbole & sunit Belapure
2. Data Communication and Networking By Forozan (Tata McGraw Hill)
3. Data Communication And Computer Networks By Dr. Madhulika Jain, Satish Jain (BPB)
4. William Stallings, "Data and Computer Communications", Pearson Education, 2008.
5. A. S. Tanenbaum, "Computer Networks", Fourth Edition, Pearson Education.

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EXAMINATION 2021-22

Paper Code:MCS-203

Paper Name : Operating System

Objective – After successful completion of this course, the student will have fundamental knowledge of internal working of operating system and basic working knowledge of Linux.

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

Credits: 5

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Unit I

Introduction to Operating System, layered Structure, Functions, Types; Process: Concept, Process States, PCB; Threads, System calls; Process Scheduling: types of schedulers, context switch, CPU Scheduling, Pre-Emptive Scheduling, Scheduling Criteria- CPU Utilization, Throughput, Turnaround Time, Waiting Time, Response Time; Scheduling Algorithms- FCFS, SJF, Priority Scheduling, Round Robin Scheduling, MLQ Scheduling, MLQ With Feedback.

Unit II

Synchronization: Critical Section Problem, Requirements for a solution to the critical section problem; Semaphores, simple solution to Readers-Writers Problem. Deadlock: Characterization, Prevention, Avoidance, Banker's Algorithm, Recovery from Deadlock. Memory Management: Physical and virtual address space, Paging, Overview of Segmentation; Virtual Memory Management: Concept, Page Replacement techniques- FIFO, LRU, Optimal

Unit III

Linux: features of Linux, steps of Installation, Shell and kernel, Directory structure, Users and groups, file permissions, commands- ls, cat, cd, pwd, chmod, mkdir, rm, rmdir, mv, cp, man, apt, cal, uname, history etc. ; Installing packages; Shell scripts: writing and executing a shell script, shell variables, read and expr, decision making (if else, case), for and while loops.

Suggested Readings

1. Operating System Principals By Abraham Silberschatz, Peter Baer Galvin (John Wiley And Sons Inc.)
2. Operating System Concepts And Design By Milan Milen Kovic (Tata Mcgraw Hill)
3. Modern Operating System Andrew S. Tanenbaum, Herbert Bos
4. Linux in easy steps, Mike McGrath, in easy steps limited
5. Unix concepts and applications , TMH, Sumitabha Das

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Paper Code: MCS-204

Paper Name : PHP

Objective – After successful completion of this course, the student will have Learn the basic concepts & techniques of php, generate an application based upon the concepts of php and will learn how to connect a php application with database.

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

Credit: 5

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consists of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Unit – I

PHP: Installation of PHP. **Building Blocks of PHP:** Variables, data types, Operators & Expressions, Constants, Switching, Flow, Loops. **Functions:** Meaning, Calling, Defining a function. Return value from user defined function. **Arrays:** Creating arrays, Array related functions. **Working with String, Date & Time:** Formatting String with PHP, Using Date and time Functions with PHP. Working with file and Directories.

Unit – II

Forms: Creating simple input Form. Accessing Form input with user defined arrays, HTML and PHP Code on a single page. Redirecting User. Working with File Upload. Uploading & Downloading. **State management:** Using query string(URL rewriting), Using Hidden field, Using cookies, Using session. **Email:** Sending Email, Headers. **Exception Handling:** Understanding Exception and error, Try, catch, throw

Unit – III

Connecting to the MYSQL: Selecting a database, Adding data to a table, Displaying returned data on Web pages, Inserting data, Deleting data, Entering and updating data, Executing multiple queries, executing stored procedures.

Suggested Readings

1. Teach Yourself PHP, MYSQL & Apache By Meloni, Pearson Education.
2. Open Source Development with LAMP: Using Linux, Apache, MySQL, Perl & PHP By James Lee, Pearson Education.
3. PHP: A Beginner's Guide By Vaswani, Vikram Tata Mc-Graw Hill.

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EXAMINATION 2021-22

Paper Code:MCS-301

Paper Name : Data Structures

Objective – This offered course give student an insights into programming structures where data can be hold by a program during the runtime. After successful of this course, the student will be able to effectively create and use data structures in the program.

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

Credit: 5

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Unit I

Algorithm: Efficiency & Analysis Algorithm: Time and Space complexity of Algorithm.

Abstract Data Type: Linked List- Linear, Circular, Two Way List, Basic Operation on Linked Lists, Application of Linked List.

Unit II

Stack : primitive operations, stack Application- Infix, postfix, prefix and Recursion Array and Linked Representation of Stack. **Queue:** Primitive operation, Circular Queue, Priority Queue, D-queue, Array and Linked Representation of Queue.

Unit III

Trees : Basic terminology, **Binary Tree :** Representation as Array and link List, Basic operation, **Tree Traversal :** Inorder, Preorder, Postorder, Application of Binary Tree. B-tree, Height Balance Tree (AVL Tree) **Graph :** Basic Terminology, Directed, Undirected, Weighted, Representation of Graphs, **Graph Traversal :** Depth First Traversal, Breadth First Search.

Suggested Readings

1. Expert Data Structure with 'C' By R.B Patel (Khana Book Publishing Co.(P))
2. Data structure By Lipschutz (Tata McGraw Hill)
3. Data Structure By Yashvant Kanitkar (BPB)
4. An Introduction to Data Structures with Applications By Jean-Paul Tremblay, Paul G.Sarerson (Tata McGraw Hill)
5. Data Structure Using C and C++ By Yedidyah Langsam, Moshe J.Augenstein, Arora M. Tenenbaum (Prentice- Hall India)

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Paper Code:MCS-302(a)

Paper Name : Java

Objective – This course is offering the basic concepts & techniques of OOPs with java, multithreading, exceptions, applets and students will able to generate an application based upon the concepts of java.

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

Credit: 5

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consists of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Unit I

Introduction to java: evolution, features, comparison with C and C++; Java program structure; tokens, keywords, constants, variables, data types, type casting, statements, Operators and Expression; Conditional Statements and Loop Statements. **Class:** syntax, instance variable, class variables, methods, constructors, overloading.

Unit II

Inheritance: types of inheritance, use of super, method overriding, final class, abstract class, wrapper classes.

Arrays, Strings and Vectors, Packages and Interfaces, visibility controls

Unit III

Errors and Exceptions: Types of errors, Exception classes, Exception handling in java, use of try, catch, finally, throw and throws. Taking user input, Command line arguments.

Multithreaded Programming: Creating Threads, Life cycle of thread, Thread priority, Thread synchronization, Inter-thread communication, Implementing the Runnable Interface.

Suggested Readings

1. The Complete reference Java Ninth Edition By Herbert Schildt (Tata McGraw Hill)
2. Beginning Programming with Java For Dummies by Burd, For Dummies; 3 edition
3. Java: A Beginner's Guide, Sixth Edition: A Beginner's Guide by Herbert Schildt, McGraw-Hill Osborne Media Programming in JAVA By E. Balagurusamy (TMH)
4. JAVA 2 programming Black Book By Steven Holzner et al. (Dreamtech Press)
5. Programming in JAVA By E. Balagurusamy (TMH)

Paper Code:MCS-302(b)

Paper Name : Python

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Objective – After successful completion of this course, the student will have the fundamental knowledge of programming in Python and various constructs.

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

Credit: 5

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Unit I

Basics: Python Interpreter, writing code in Jupyter Notebook, Indentation, comments, importing a module, binary operators, standard scalar data types, type casting, if-else statements, loops(while, for), pass, range, ternary expressions. Data Structures and Sequences: Tuples, Lists and slicing, Built-in Sequence functions, Dictionary, Sets; List, Set, and Dict Comprehensions.

Unit II

Functions: Namespaces, Scope, and Local Functions; Returning Multiple Values, Anonymous (Lambda) Functions, Partial Argument Application, Generators, Errors and Exception handling. Basic File Handling. Objects and Methods in Python. NumPy: creating N-dimensional arrays, arithmetic with NumPy arrays, basic indexing and slicing, Psuedorandom number generation.

Unit III

Pandas: Overview of Series and DataFrames, reading data from csv file, DataFrame operations- working with data using functions like head, tail, info, shape, reshape, columns, isnull, dropna, mean, sum, describe, value_counts, corr, loc, iloc, apply. Matplotlib- plotting basic figures, subplots, line plots, bar plots, histograms, scatter plots. Overview of Scikit-learn, SciPy, networkx. Applications of python.

Suggested Readings

1. Python for Data Analysis: Data Wrangling with Pandas, NumPy, and Ipython, by Wes McKinney, O'Reilly Media, 2017
2. Python All-in-One for Dummies, by John Shovic and Alan Simpson, John Wiley & Sons, Inc., 2019
3. Programming in Python 3: A Complete Introduction to the Python Language, Mark Summerfield, Pearson.

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4. Swaroop, C. H. (2003). A Byte of Python. Python Tutorial.
5. Introduction to Computation and Programming Using Python. By John V. Guttag, MIT Press.
6. Learning Python , Mark Lutz, David Ascher, O'Reilly
7. T. Budd, Exploring Python, TMH, 1st Ed, 2011

Web Resources

1. <https://www.learnpython.org/>
2. <https://nptel.ac.in/courses/106/106/106106212/>
3. <http://greenteapress.com/thinkpython/thinkpython.pdf>
4. Python tutorial: <https://docs.python.org/3/tutorial/index.html>

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EXAMINATION 2021-22

Paper Code: MCS-303(a)

Paper Name : Software Engineering & Research Methodology

Objective – After completing this course the student will have an understanding of concepts of software engineering and Research Methodology

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

Credit: 5

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Note: Scientific Calculator may be allowed in end-semester examination.

Unit I

Software : Software Characteristics, Software Process, Process Characteristics, **Software Process Model** : Linear Sequential Model, Prototyping Model, Spiral Model, Software Quality, McCall's Quality Factors, **Software Requirement Analysis and Specification (SRS)** : Need Characteristics and Components.

Unit II

Planning a Software Project: COCOMO Model, Project Monitoring Plan and Risk Management. **Design Principle** : Abstraction, Modularity, Cohesion and Coupling, **Software Management** : Size Oriented Matrices, Function Oriented Matrices. **Testing** : Testing Fundamental, Functional Testing (Black Box), Structural Testing (White Box), Alpha And Beta Testing, **Testing Process** : Comparison of Different Testing, Level of Testing.

Unit III

Research Methodology: Meaning of Research, Objective of Research, Types of Research, Research Approaches, Significance of research, Research Methods versus Methodology, Research Process, Criteria of Good Research, , What is Research Problem, Selecting the problem, Necessity of defining the problem, Technique involved in defining a problem.

Suggested Readings

1. Software Engineering: A Practitioner's Approach By Roger S. Pressman, McGraw Hill.
2. Software Engineering: A Precise Approach by Pankaj Jalote, Wiley Precise textbook Series
3. Research Methodology Methods and Techniques by C. R. Kothari, New Age International Publisher

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EXAMINATION 2021-22

Paper Code: MCS-303(b)

Paper Name : Artificial Intelligence

Objective – The proposed course offer students the idea various aspects and applications of artificial intelligence.

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

Credit: 5

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consists of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Unit I

Definition, History, Agents and environment, Defining the problem as a state and space search, What is Intelligence? Types of Intelligence, Difference between Human and Machine Intelligence, The Structure of Intelligent Agents. Solving problems by searching: Uninformed search strategies- Brute-Force, Breadth-First, Uniform-cost search Depth-First, Depth-limited search, depth-first search, Bidirectional search. Informed (heuristic) search strategies- Greedy best-first search, A*, AO* Memory-bounded heuristic search.

Unit II

Heuristic functions, local search algorithms- Hill-climbing search, Simulated annealing, Local beam search. Knowledge Based System: Knowledge, Procedure V/S Declarative Knowledge, Knowledge Representation: Using Procedural and Predicate Logic, Inference in First order logic: Unification and Lifting, Forward Chaining, Backward Chaining, Resolution. Rule based System, Frames, Frames, Scripts, and Semantic Nets.

Unit III

Probabilistic Reasoning, Probability and Bayes Theorem, represent knowledge in uncertain domain, Certainty factors, Bayesian Networks, Dempster-Shafer theory, introduction to Fuzzy logic. Learning: types of learning, decision trees. **Expert System: types, architecture. Introduction to Artificial Neural Networks, Reinforcement learning, Natural Language Processing, Pattern Recognition and Perception.**

Suggested Readings

1. Artificial Intelligence By Rich And Knight (Tata McGraw Hill)
2. Introduction to Artificial Intelligence and Expert Systems By Patterson (Prentice-Hall India)
3. Artificial Intelligence A Modern Approach by Russell and Norvig, Prentice Hall

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EXAMINATION 2021-22

Paper Code: MCS-305(a)

Paper Name : Data Analysis Using R

Objective - After successful completion of this course, the student will have working knowledge of R and he/she will be able to do elementary data analysis using R.

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

Credit: 5

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Unit I

Foundations for data analysis-matrices, notion of probability, concept of random variables and various distributions, mean, variance, covariance, normal distributions, overview of sampling, hypothesis testing, confidence interval, concept of optimization.

Unit II

installation of R, data editing, use of R as a calculator; functions and assignments. matrix operations, logical operators, Conditional executions and loops, data management with sequences, repeats, sorting and ordering, lists, vector indexing, factors; display and formatting of strings.

Unit III

Working with data frames, Importing data files; Graphics and plots; basic statistical functions for central tendency, variation, boxplots, skewness and kurtosis, correlations; overview of using R functions for a simple hypothesis testing, Applications of R.

Suggested Readings:

1. Hands-On Programming with R, Garrett Golemund, O'Reilly Publishers.
2. R for Beginner - https://cran.r-project.org/doc/contrib/Paradis-rdebuts_en.pdf
3. A Learning Guide to R - https://www.westernsydney.edu.au/_data/assets/pdf_file/0011/830909/Rnotes_20180905_web.pdf
4. Applied Statistics and Probability For Engineers – by Douglas Montgomery, John Wiley & Sons Inc.
5. Research Methodology : Methods And Techniques, C.R. Kothari, New Age International Publishers.
6. Design and Analysis of Experiments (Wiley India), Montgomery, Douglas C.

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EXAMINATION 2021-22

Paper Code:MCS-305(b)

Paper Name : LaTeX: a document preparation system

Objective - After successful completion of this course, the student will be able to create a polished document with high typographical quality for research papers/articles.

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

Credit: 5

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Unit I

Installation of the software LaTeX, Structure of LaTeX documents; Special Characters, Producing equations, Matrices, Tables, itemised lists, hypertext links ;Page Layout –Title, Abstract , Chapters, Sections, References.

Unit II

Including graphics, images, floating bodies; Producing basic mathematical graphics like line segments, arrows, circles, ovals, Generating index and bibliography, creating PDF file.

Unit III

Adding a new command; generating spaces ,colored text ; Writing a sample resume, question paper , article/ research paper; Creating presentation using beamer.

Suggested Readings:

1. LaTeX: A Document Preparation System, By Leslie Lamport, Addison- Wesley.
2. LaTeX Beginner's Guide , by Stefan Kottwitz , Packt Publishing Limited
3. Tobias Oetiker, Hubert Partl, Irene Hyna and Elisabeth Schegle: The Not So Short Introduction to LaTeX 2e, <https://tobi.oetiker.ch/lshort/lshort-a5book.pdf>, 2014.

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EXAMINATION 2021-22

Paper Code: MCS-401(a)

Paper Name : Data Mining

Objective – After successful completion of this course, the student will have the basic knowledge of concepts including classification, association and clustering.

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

Credit: 5

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Note: Scientific Calculator may be allowed in end-semester examination.

Unit I

Data mining Introduction: Definition, Data mining tasks, Data mining as a step of Knowledge discovery process, Applications of Data mining; Data objects and types of attributes, Recalling mean, median, mode and weighted arithmetic mean, Data quality, overview of data preprocessing.

Unit II

Classification analysis- definition, Overview of various classification techniques; Decision tree induction- working, examples, specifying attribute test conditions, Measures of node impurity, measures for selecting best split; Evaluating the performance of a classifier- Holdout method, Random subsampling, cross-validation, Bootstrap.

Unit III

Association analysis: support, confidence, association rules, Frequent Item sets; Frequent itemset generation - Apriori principle, Apriori algorithm and examples, FP growth algorithm and examples; Closed and maximal frequent itemsets. Cluster analysis: Definition, overview of basic clustering methods, Density based methods-DBSCAN.

Suggested Readings

1. Data Mining: Concepts and Techniques, 3rd edition, Jiawei Han and Micheline Kamber
2. Introduction to Data Mining, Pang-Ning Tan, Michael Steinbach, Vipin Kumar, Pearson Education.
3. Data Mining: A Tutorial Based Primer, Richard Roiger, Michael Geatz, Pearson Education 2003.
4. Introduction to Data Mining with Case Studies, G.K. Gupta, PHI 2006
5. Insight into Data mining: Theory and Practice, Soman K. P., Diwakar Shyam, Ajay V., PHI 2006
6. Data Mining: Practical Machine Learning Tools and Techniques (Morgan Kaufmann Series in Data Management Systems) by Witten, Frank, Hall

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EXAMINATION 2021-22

Paper Code:MCS-401(b)

Paper Name : Computer Graphics & Multimedia

Objective – After successful completion of this course, the student will have the fundamental knowledge of computer graphics , multimedia and working knowledge of Blender tool.

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

Credit: 5

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consists of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Note: Non-Scientific Calculator may be allowed in end-semester examination.

Unit I

Basic elements of Computer Graphics, Graphics display devices, Applications of Computer Graphics, Raster and random scan; Color Models :RGB, CMY, HSV; Graphics Standard : OpenGL; Scan Conversion: DDA line algorithm, Mid-point circle Algorithm. 2D Transformation: Translation, Rotation, Scaling, Homogenous Co-ordinates and Matrix Representation of 2D Transformation, Composite Transformation.

Unit II

3D Graphics: Matrix Representation of 3D transformations, Translation, Rotation, Scaling, Composite Transformation. Overview of concepts:Clipping, orthographic and parallel projection, hidden surface removal, lighting , transparency, modelling and texturing, rendering ; Animations : Principles of animations ,keyframing,concept of 2D and 3D animation .

Unit III

Blender: GUI Interface, Selecting,rotating and Translating Objects, Using Snap to move objects precisely, Creating mesh primitives and extrusions, Subdividing meshes, Creating a simple creature, Joining mesh objects and stitching vertices , Organizing a scene with layers, groups, and hierarchies, Assigning glossy and reflective materials to objects, Creating bump maps, Creating sky and ambient light, Understanding ambient occlusion, Adding motion blur and depth of field, Editing animation in the Graph Editor, Building and animating a simple character.

Suggested Readings

1. Computer Graphics (Principles and Practice) by Foley, van Dam, Feiner and Hughes, Addison Wesley (Indian Edition)
2. Computer Graphics by D Hearn and P M Baker, Printice Hall of India (Indian Edition).
3. Mathematical Elements for Computer Graphics by D F Roger.
4. Introduction to Computer Graphics By Krihsnamurthy N (Tata McGraw Hill)
5. Theory and Problems of Computer Graphics (Schaum's Outline) By Zhigang X. and Plastock Ra. (Tata McGraw Hill)

Web Resources

1. <https://www.cs.duke.edu/brd/Teaching/Previous/Animation/animation.html>
2. [http://zikky.lecturer.pens.ac.id/Produksi 3D untuk Designer/Beginning Blender-book.pdf](http://zikky.lecturer.pens.ac.id/Produksi%203D%20untuk%20Designer/Beginning%20Blender-book.pdf)
- 3.<http://www.blenderhd.com/wp-content/uploads/2015/08/BeginnersGuideToBlender.pdf>
4. [https://people.sc.fsu.edu/~gerlebacher/gd/blender/blender/blender noob to pro.pdf](https://people.sc.fsu.edu/~gerlebacher/gd/blender/blender/blender%20noob%20to%20pro.pdf)

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5. [http://download.blender.org/documentation/pdf/John M Blain - An Introduction To Blender 3D - A Book For Beginners \(2011\).pdf](http://download.blender.org/documentation/pdf/John%20M%20Blain%20-%20An%20Introduction%20To%20Blender%203D%20-%20A%20Book%20For%20Beginners%20(2011).pdf)
6. http://www.cdschools.org/cms/lib04/PA09000075/Centricity/Domain/81/BlenderBasics_4thEdition2011.pdf
7. <https://docs.blender.org/manual/en/dev/index.html>

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EXAMINATION 2021-22

Paper Code:MCS-402(a)

Paper Name : Android Programming

Objective – This offered course give students the basic concepts & techniques of Android Programming with java and they will able to generate a mobile app based upon the concepts of android.

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

Credit: 5

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consists of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Unit -I

Introduction: What is Android?, Android Architecture, Setting Android Environment, Android SDK Manager & required Packages, Using Android Studio, Android Virtual Device(AVD), Creating First Android Application, Package Structure, Introduction to Gradle, Running the Application, Views, Layouts and more.

Unit – II

Introduction to Views: TextView, EditText View, RadioButton and CheckBox View, Button View, ImageView and ImageButton View, Toast, Notifications.

Introduction to Layouts/ViewGroups: Linear Layout, Relative Layout, Tabular Layout, Hierarchical Layout Arrangements, Adapter and Adapter View, Using ListView and GridView, SQLite Database.

Unit – III

Spinner in Android, Working with Spinners, Margin and Padding, Working with EditText and TextView, RadioGroup, RadioButton and CheckBox, AutoCompleteTextView in Android, Android Core and Projects.

Location Based Services: Sending Email, Sending SMS, Phone Calls

Activity in Android, Intents in Android, Introduction to Fragments, Working with Fragments

Suggested Readings

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1. Android Programming for Beginners by John Horton Publisher: Packt Publishing
2. Learn Java for Android Development (2nd edition) by Jeff Friesen Publisher: Apress
3. Android application development for java programmers. By James C. Sheusi.
Publisher: Cengage Learning, 2013.
4. Beginning Android Programming with Android Studio, Fourth Edition by Jerome F. DiMarzio Publisher: John Wiley & Sons
5. Android Programming: The Big Nerd Ranch Guide by Kristin Marsicano , Chris Stewart , Bill Phillips Publisher: Big Nerd Ranch Guides

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EXAMINATION 2021-22

Paper Code:MCS-402(b)

Paper Name : Advanced Web Programming

Objective – This offered course give students the basic concepts & techniques of OOPs with C# and make the able to generate a web application based upon the concepts of ASP.NET with C# and database connectivity.

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

Credit: 5

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consists of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Unit -I

Basic of the .NET framework: .NET Architecture, managed code, assemblies, clr, execution of assemblies code, il, jit, net framework class library, common type system, common language specification. Overview C#, similarities and differences from JAVA, Structure of C# program. Language features- Type system, boxing and Unboxing, flow controls, Classes, Properties, Indexers, Constructors, Inheritance, Interfaces, Delegates.

Unit -II

Understanding ASP.NET Controls: Web forms, Buttons, Text Box, Labels, Checkbox, Radio Buttons, List Box etc. Running a web Application, creating a multiform web project, Form Validation Controls- Required Field, Compare, Range. Calendar Control, Ad Rotator Control, State Management-View State, Session State, Application State.

Unit -III

Architecture Of ADO.NET, Connected and Disconnected Database, Create Connection Using ADO.NET Object Model, Connection Class, Command Class, DataReader Class, Data adapter Class, Dataset Class. Display Data on Bound Controls and Gridview. Database Accessing on Web Applications: Insert records in database, delete and update records from database, Display a particular record and all records on web form.

Suggested Readings

1. ASP.NET 2.0 Black Book By RudrakshBatra, CharulShukla (Dream Tech Press)
2. ASP. NET Bible By MridulaParihar and et al. (Hungry Minds, New York)
3. Andrew Troelsen – “C# and the .Net Platform” – Apress – 2001.(Unit I and II)
4. Alex Homer et. al. – “Professional ASP .NET 1.1” – Wiley-dreamtech India Pvt. Ltd. – 2004.
5. ASP.NET Developer’s Guide By G Buezek (TMH)
6. .NET Framework Essentials 3rd Edition (O’Reilly)

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EXAMINATION 2021-22

Paper Code:MCS-403(a)

Paper Name : Cloud Computing

Objective – After completing this course the student will have an understanding of key aspects of cloud computing

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

Credit: 5

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Unit I

Introduction to Cloud Computing, Services provided by cloud-SaaS, PaaS, IaaS, DaaS etc. Functioning of cloud computing, Advantages, Disadvantages, Applications, Cloud Service Providers- Amazon AWS, Google App Engine, Microsoft, VMware. Virtualization concepts, Objectives, Types of Virtualization & its benefits, Introduction to Various Virtualization OS (Hypervisor). Virtualization for Enterprises

Unit II

Designing and Implementing a Data Center-Based Cloud, Industry and International Standards for Cloud Implementation, Building private cloud using open source tools, Integration of Public and Private Cloud. Private, Public & Hybrid Clouds, their Advantages & Disadvantages, On Premises and Off Premises Cloud services, installing a Cloud service.

Unit III

Cloud Security issues - Infrastructure Security, Network level security, Host level security, Application level security, Data privacy and security Issues, Jurisdictional issues raised by Data location, Access Control, Trust, Reputation, Risk and Authentication in cloud computing

Suggested Readings

1. Cloud Computing Concepts Technology and Architecture by Thomas Erl, Prentice Hall
2. Cloud Computing principles and paradigms by Rajkumar Buyya, James Broberg and Andrzej Goscinski, John Wiley and Sons, Inc. Publication
3. Cloud Computing Theory and Practice by Dan C. Marinescu, Morgan Kaufman Publication

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EXAMINATION 2021-22

Paper Code: MCS-403(b)

Paper Name : Internet of Things

Objective – The objective of this course is to introduce basic concepts of IOT and its applications

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

Credit: 5

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Unit I

M2M to IoT : Introduction, Market Perspective, Architectural Overview. M2M to IOT Technology- Devices and gateways, Local and wide area networking, Data management, Business processes in IoT, IoT analytics, Knowledge management, IOT Architecture, Architecture Reference Model, Real world design constraints.

Unit II

IOT Use Cases- Asset Management, **Industrial Automation-** Service-oriented architecture-based device integration, SOCRADES: realizing the enterprise integrated Web of Things, IMC-AESOP: from the Web of Things to the Cloud of Things, **Commercial Building Automation-** Introduction, Case study: phase one-commercial building automation today, Case study: phase two- commercial building automation in the future.

Unit III

Internet of Things Privacy, Security and Governance Introduction, Overview of Governance, Privacy and Security Issues, Contribution from FP7 Projects, Security, IOT and Smart Cities, Privacy and Trust in IoT-Data-Platforms for Smart Cities, First Steps Towards a Secure Platform, Smartie Approach. Data Aggregation for the IoT in Smart Cities, Security

Suggested Readings

1. From Machine-to-Machine to the Internet of Things: Introduction to a New Age of Intelligence by Jan Holler, Vlasios Tsiatsis, Catherine Mulligan, Stefan Avesand, Stamatis Karnouskos, David Boyle, 1st Edition, Academic Press, 2014.
2. Internet of Things (A Hands-on-Approach) by Vijay Madisetti and Arshdeep Bahga, 1st Edition, VPT, 2014.
3. Rethinking the Internet of Things: A Scalable Approach to Connecting Everything by Francis daCosta, 1st Edition, Apress Publications, 2013
4. Designing the Internet of Things , Adrian McEwen (Author), Hakim Cassimally
5. Internet of Things: Converging Technologies for Smart Environments and Integrated Ecosystems by Dr. Ovidiu Vermesan, Dr. Peter Friess, River Publishers
6. Internet of Things (A Hands-on-Approach) , Vijay Madisetti , Arshdeep Bahga
7. Building the internet of things with ipv6 and mipv6, The Evolving World of M2M Communications, Daniel Minoli John Wiley & Sons

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EXAMINATION 2021-22

Paper Code: MCS-405

Paper Name : Project

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

1. Marks distribution for External Project report of 40 marks is as under
 - a. External Evaluation-
 - i. Project Dissertation 25 marks
 - ii. Presentation 10 marks
 - iii. External Viva Voce 5 marks
 - b. Internal Evaluation- Dissertation 10 Marks

Practical Training and Project Work:

1. Project Work may be done individually or in groups in case of bigger projects. However if project is done in group each student must be given a responsibility for a distinct module and care should be taken to monitor the individual student.
2. Project Work can be carried out in the college or outside with prior permission of college.
3. The Student must submit a synopsis of the project report to the college for approval. The Project Guide can accept the project or suggest modification for resubmission. Only on acceptance of draft project report the student should make the final copies.
4. **Project Report should be hand written.**

Submission Copy:

The Student should submit spiral bound copy of the project report.

Format of the Project:

1. **Paper:**
The Report shall be typed on White Paper of A4 size.
2. **Final Submission:**
The Report to be submitted must be original.
3. **Typing:**
Font:- Times New Roman
Heading:- 16 pt., Bold
Subheading:- 14 pt, Bold
Content:- 12 pt.
Line Spacing:- 1.5 line.
Typing Side :- One Side
Font Color:- Black.
4. **Margins:**
The typing must be done in the following margin:
Left : 0.75”
Right: 0.75”
Top: 1”

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Bottom: 1”

Left Gutter: 0.5”

5. Binding:

The report shall be Spiral Bound.

6. Title Cover:

The Title cover should contain the following details:

Top: Project Title in block capitals of 16pt.

Centre: Name of project developer’s and Guide name.

Bottom: Name of the university, Year of submission all in block capitals of 14pt letters on separate lines with proper spacing and centering.

7. Blank sheets:

At the beginning and end of the report, two white blank papers should be provided, one for the Purpose of Binding and other to be left blank.

8. Content:

I). Acknowledgement

II). Institute/College/Organization certificate where the project is being developed.

III). Table of contents

IV). A brief overview of project

V). Profiles of problem assigned

VI). Study of Existing System

VII). System Requirement

VIII). Project plan

- Team Structure

- Development Schedule

- Programming language and Development Tools

IX). Requirement Specification

X). Design

- Detailed DFD’s and Structure Diagram

- Data structure, Database and File Specification

XI). Project Legacy

- Current Status of project

- Remaining Areas of concern

- Technical and Managerial Lessons Learnt

- Future Recommendations

- Nomenclature and Abbreviations.

- Bibliography

- Source Code

SCHEME OF EXAMINATION AND SYLLABUS

M.Sc.(Computer Science) Lateral Entry
Session 2020-21



@M.G.S. UNIVERSITY, BIKANER

SCHEME OF EXAMINATION

1. ELIGIBILITY FOR ADMISSION

PGDCA from the MGS University and affiliated colleges under the jurisdiction of the university shall be eligible for admission to the M.Sc.(CS) LE Course. (Relaxation to SC/ST etc. as per State Government/University Admission Rules)

2. PASS CRITERIA

The examinee has to secure at least 36% marks to pass the examination and 25% marks in each individual paper. Even if he/she will be failed in one paper/course, he/she will be declared fail. She/he however should be allowed one more chance to take the examination as Ex-student. In such a case, the marks of practical/ tutorials etc shall be carried forward for the said purpose.

CLASSIFICATION OF SUCCESSFUL CANDIDATE

Division	Total Marks
First Division	60% and above
Second Division	Above 48% and below 60%
Pass	Above 36% and below 48%
Fail	Below 36%

3. INSTRUCTIONS TO PAPER SETTER

The question paper contains 3 sections. **Section-A** consists of 10 questions (2 questions from each unit of syllabus). **Section-B** consists of 10 questions (2 questions from each unit of syllabus). **Section-C** consists of 5 questions (1 question from each unit syllabus).The word limit of part A, B and C are 50, 200 and 500 respectively

4. WORKLOAD

At least 3 classes for theory class and 3 classes for practical lab should be assigned per week for each paper.

5. INSTRUCTIONS FOT PRACTICAL EXAMINATION

Marks Distribution for Practical Exam -

Each practical exam is to be conducted by two examiners one External and one Internal. External examiner should be senior lecturer from jurisdiction of MGS University. External examiner will prepare question paper of Practical Examination. Students have to perform exercise on computer. Exercise must be written in answer books in proper documentation. Marks distribution for Practical of 50 marks is as under

i) Three Exercise of 10 marks each (Logic 04, Execution 03, Documentation 03)	30 Marks
ii) Viva-Voce	10 Marks
iii) Laboratory Exercise File	10 marks

Marks distribution for Project of 100 marks is as under

i) Project Dissertation and Presentation	75 marks
ii) External Viva Voce	25 marks

Teaching and Examination scheme

Paper Code	Paper Name	Lect/ week	Tuto/ week	Exam Hours	Max. Marks	Min. Passing Marks
MCSLE-101	Mathematics for Computer Science	3	1	3	50	13 (25%)
MCSLE-102	Software Engineering	3	1	3	50	13 (25%)
MSCLE-103	Data Structures	3	1	3	50	13 (25%)
MCSLE-104	Java	3	1	3	50	13 (25%)
MCSLE-105	Internet Programming	3	1	3	50	13 (25%)
MCSLE-106	Project	3	1	3	100	25 (25%)
Total of Theory Papers					350	126 (36% aggregate)
Practical Papers						
PGDCA107	DS & Java Lab	3	-	3	50	18 (25%)
PGDCA 108	Internet Programming Lab	3	-	3	50	18 (25%)
Total of Practical Papers					100	36 (36% aggregate)
Grand Total (Theory 350 + Practical 100)					450	162 (36% aggregate)

Paper Code: MCSLE -101

Paper Name : Mathematics for Computer Science

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

The question paper contains 3 sections. **Section-A** consists of 10 questions (2 questions from each unit of syllabus). **Section-B** consists of 10 questions (2 questions from each unit of syllabus). **Section-C** consists of 5 questions (1 question from each unit syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Note: Non-Scientific Calculator is allowed to be used in examination.

Unit – I

Sets, different types of sets, set operations; Basic Counting Principles, Pigeonhole Principle, Binomial Coefficients, Binomial Theorem, Permutations, Combinations

Unit - II

Matrices: addition, multiplication; Vectors: Position vector, addition, subtraction and products of vectors.

Unit -III

Mathematical Induction; Logic: Propositions and logical operations, Conditional statements, Tautologies and Contradictions, Logical Equivalence, quantifiers.

Unit - IV

Relations: Representation of Relations, Properties of relations, transitive closure; Ordered Sets: poset, Properties, Hasse Diagram, Extremal elements of posets

Unit V

Functions: Types of Functions, Asymptotic notations; Co-ordinate Systems: representation of points, straight lines, standard equation of circles.

Suggested Readings

1. Discrete Mathematics and its applications by K.H. Rosen, seventh edition
2. Discrete Mathematical Structures by Kolman, Busby and Ross, Sixth Edition, PHI.
3. Schaum's Outline Of Theory and Problems of Discrete Mathematics, Third Edition. SEYMOUR LIPSCHUTZ
4. NCERT Mathematics textbook for class XI and XII
5. Elements of Discrete Mathematics, TMH, C L Liu
6. Foundation Mathematics for Computer Science: A Visual Approach, John Vince, Springer
7. Calculus and Analytic Geometry, George B. Thomas and Ross L. Finney, Addison Wesley

Paper Code: MCSLE -102

Paper Name : Software Engineering

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

The question paper contains 3 sections. **Section-A** consists of 10 questions (2 questions from each unit of syllabus). **Section-B** consists of 10 questions (2 questions from each unit of syllabus). **Section-C** consists of 5 questions (1 question from each unit syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Note: Scientific Calculator is allowed to be used in the examination.

Unit I

Software Engineering: Software, **Software Process,** Process Characteristics, Software Process Model- Linear Sequential Model, Prototyping Model, Spiral Model. **Software Quality,** McCall's Quality Factors. **Software Requirement Analysis and Specification (SRS):** Need, Characteristics and Components.

Unit II

Cost Estimation: COCOMO Model, **Designing Concepts:** Design Principles, Module level concepts- Cohesion and Coupling, Design notations and specifications, Verification, Metrics.

Unit III

Object Oriented Design: Concepts, Design Notation and Specification, Design methodology, metrics. **Debugging Process:** Information Gathering, Fault Isolation, Fault Confirmation, Documentation, Fixing fault isolation.

Unit IV

Testing: Testing Fundamental, Functional Testing (Black Box), Structural Testing (White Box), Alpha And Beta Testing, Testing Object Oriented Programs, Testing Process: Comparison of Different Testing, Level of Testing. Project management for special classes of software projects: Using CASE tools, CBSE.

Unit – V

UML: An overview of UML- UML notations, UML Class diagrams- association, multiplicity, generalization, aggregation, interfaces.

Suggested Readings

1. Software Engineering: A Practitioner's Approach by Roger S. Pressman(McGraw Hill)
2. An Integrated Approach to Software Engineering By PankajJalote, (Narosa Publishing House)
3. Object-Oriented SoftwareEngineering: Practical Software Development using UML and Java By Timothy C. Lethbridge, Robert Laganière (McGraw Hill)

4. Object-Oriented Software Engineering Using UML, Patterns, and Java By Bernd Bruegge & Allen H. Dutoit (Prentice Hall)

Paper Code: MCSLE -103

Paper Name : Data Structures

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

The question paper contains 3 sections. **Section-A** consists of 10 questions (2 questions from each unit of syllabus). **Section-B** consists of 10 questions (2 questions from each unit of syllabus). **Section-C** consists of 5 questions (1 question from each unit syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Unit I

Algorithm: Efficiency & Analysis Algorithm: Time and Space complexity of Algorithm.
Abstract Data Type: Linked List- Linear, Circular, Two Way List, Basic Operation on Linked Lists, Application of Linked List.

Unit II

Stack : primitive operations, stack Application- Infix, postfix, prefix and Recursion Array and Linked Representation of Stack. **Queue:** Primitive operation, Circular Queue, Priority Queue, D-queue, Array and Linked Representation of Queue.

Unit III

Trees : Basic terminology, **Binary Tree :** Representation as Array and link List, Basic operation, **Tree Traversal :** Inorder, Preorder, Postorder, Application of Binary Tree. B-tree, Height Balance Tree (AVL Tree)

Unit IV

Graph : Basic Terminology, Directed, Undirected, Weighted, Representation of Graphs, **Graph Traversal :** Depth First Traversal, Breadth First Search.

Unit V

String handling, String class, Templates, Searching and Sorting: Searching: Linear Search, Binary Search. Sorting: Insertion Sort, Selection Sort, Quick Sort, Bubble Sort, Heap Sort, Shell Sort, Merge sort, Radix Sort, Counting Sort, Bucket Sort.

Suggested Readings

1. Expert Data Structure with 'C' By R.B Patel (Khana Book Publishing Co.(P))
2. Data structure By Lipschutz (Tata McGraw Hill)
3. Data Structure By Yashvant Kanitkar (BPB)
4. An Introduction to Data Structures with Applications By Jean-Paul Tremblay, Paul G.Sarerson (Tata McGraw Hill)
5. Data Structure Using C and C++ By Yedidyah Langsam, Moshe J.Augenstein, Arora M. Tenenbaum (Prentice- Hall India)

Paper Code: MCSLE -104

Paper Name : Java

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

The question paper contains 3 sections. **Section-A** consists of 10 questions (2 questions from each unit of syllabus). **Section-B** consists of 10 questions (2 questions from each unit of syllabus). **Section-C** consists of 5 questions (1 question from each unit syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Unit I

Introduction to java: evolution, features, comparison with C and C++; Java program structure; tokens, keywords, constants, variables, data types, type casting, statements, Operators and Expression; Conditional Statements and Loop Statements. **Class:** syntax, instance variable, class variables, methods, constructors, overloading of constructors and methods

Unit II

Inheritance: types of inheritance, use of super, method overriding, final class, abstract class, wrapper classes. Arrays, Strings and Vectors, Packages and Interfaces, visibility controls

Unit III

Errors and Exceptions: Types of errors, Exception classes, Exception handling in java, use of try, catch, finally, throw and throws. Taking user input, Command line arguments

Unit IV

Multithreaded Programming: Creating Threads, Life cycle of thread, Thread priority, Thread synchronization, Inter-thread communication, Implementing the Runnable Interface

Unit V

Swings : Classes, Working With JFrame Windows, Working With Graphics, Working With Colour, Adding And Removing Controls, Responding To Controls, Labels, Buttons, Checkbox, Checkbox Group, Choice Control, Lists, Text Field, Text Area. Menus, Dialog Box, Handling Events.

Suggested Readings

1. The Complete reference Java Ninth Edition By Herbert Schildt (Tata McGraw Hill)
2. Core Java Volume I--Fundamentals (9th Edition) by Cay S. Horstmann, Gary Cornell, Prentice Hall
3. Java: A Beginner's Guide, Sixth Edition: A Beginner's Guide by Herbert Schildt, McGraw-Hill Osborne Media
4. Programming in JAVA By E. Balagurusamy (TMH)
5. JAVA 2 programming Black Book By Steven Holzner et al. (Dreamtech Press)
6. Horstmann, Cay S. and Gary Cornell, "Core Java 2: Fundamentals Vol. 1"

Paper Code: MCSLE -105

Paper Name : Internet Programming

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

The question paper contains 3 sections. **Section-A** consists of 10 questions (2 questions from each unit of syllabus). **Section-B** consists of 10 questions (2 questions from each unit of syllabus). **Section-C** consists of 5 questions (1 question from each unit syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Unit I

Internet Basics: Evolution of Internet, Basic internet terms and applications. ISP, Anatomy of an e-mail Message, basic of sending and receiving, E-mail Protocol; Mailing List- Subscribing, Unsubscribing. Introduction to World Wide Web and its work, Web Browsers, Search Engine, Downloading, Hyper Text Transfer Protocol (HTTP), URL, Web Servers, FTP, Web publishing-Domain Name Registration, Space on Host Server for Web Site, Maintain and Updating.

Unit - II

HTML: Elements of HTML & Syntax, Comments, Headings, Paragraph, Span, Pre Tags, Backgrounds, Formatting tags, Images, Hyperlinks, div tag, List Type and its Tags, Table Layout, div, frame, Use of Forms in Web Pages.

Unit III

CSS: Introduction to Cascading Style Sheets, Types of Style Sheets (Inline, Internal and External), using Id and Classes, CSS properties: Background Properties, Box Model Properties, Margin, Padding, List Properties, Border Properties, Positioning Properties,

Unit - IV

Java Script: Introduction to Client Side Scripting, Introduction to Java Script, Comments, Variables in JS, Global Variables, Data types, Operators in JS, Conditions Statements (If, If Else, Switch), Java Script Loops (For Loop, While Loop, Do While Loop),

Unit V

JS Popup Boxes (Alert, Prompt, Confirm), JS Events, Onload, Onunload, Onsubmit, OnFocus, Onchange Event, Onblur Event, Onmouseover, Onclick, Ondblclick Events, JS Arrays, Working with Arrays, JS Objects, Window object, Document object, JS Functions, getElementById, innerHTML property, innerText property, form validation, email validation.

Suggested Readings

1. Thomas A. Powell , "HTML: The Complete Reference", Osborne/McGraw-Hill
2. Deitel, Deitel and Nieto : Internet & WWW. How to program, 2nd Edition, Pearson Education Asia.
3. E Stephen Mack, Janan Platt : HTML 4.0 , No Experience Required, 1998, BPB Publications.
4. "HTML Complete" by Sybex, BPB Publications, 2001.
5. Internet and Web Page Designing By V.K Jain (BPB)
6. Web Enabled Commercial Application Development Using HTML, DHTML , java script, Perl CGI By Ivan Bayross (BPB)

Paper Code: MCSLE -106

Paper Name : Project

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

The question paper contains 3 sections. **Section-A** consists of 10 questions (2 questions from each unit of syllabus). **Section-B** consists of 10 questions (2 questions from each unit of syllabus). **Section-C** consists of 5 questions (1 question from each unit syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

Practical Training and Project Work:

1. Project Work may be done individually or in groups in case of bigger projects(maximum two). However if project is done in group each student must be given a responsibility for a distinct module and care should be taken to monitor the individual student.
2. Project Work can be carried out in the college or outside with prior permission of college.
3. The Student must submit a synopsis of the project report to the college for approval. The Project Guide can accept the project or suggest modification for resubmission. Only on acceptance of draft project report the student should make the final copies.
4. **Project report should be hand written**

Submission Copy:

The Student should submit Spiral bound copy of the project report.

Format of the Project:

(a) **Paper:**

The Report shall be typed on White Paper of A4 size.

(b) **Final Submission:**

The Report to be submitted must be original.

(c) **Typing:**

Font:- Times New Roman

Heading:- 16 pt., Bold

Subheading:- 14 pt, Bold

Content:- 12 pt.

Line Spacing:- 1.5 line.

Typing Side :-One Side

Font Color:- Black.

(d) **Margins:**

The typing must be done in the following margin:

Left : 0.75”

Right: 0.75”

Top: 1”

Bottom: 1”

Left Gutter: 0.5”

(e) **Binding:**

The report shall be Spiral Bound.

(f) **Title Cover:**

The Title cover should contain the following details:

Top: Project Title in block capitals of 16pt.

Centre: Name of project developer's and Guide name.

Bottom: Name of the university, Year of submission all in block capitals of 14pt letters on separate lines with proper spacing and centering.

(g) Blank sheets:

At the beginning and end of the report, two white blank papers should be provided, one for the Purpose of Binding and other to be left blank.

(h) Content:

- I). Acknowledgement
- II). Institute/College/Organization certificate where the project is being developed.
- III). Table of contents
- IV). A brief overview of project
- V). Profiles of problem assigned
- VI). Study of Existing System
- VII). System Requirement
- VIII). Project plan
 - Team Structure
 - Development Schedule
 - Programming language and Development Tools
- IX). Requirement Specification
- X). Design
 - Detailed DFD's and Structure Diagram
 - Data structure, Database and File Specification
- XI). Project Legacy
 - Current Status of project
 - Remaining Areas of concern
 - Technical and Managerial Lessons Learnt
 - Future Recommendations
- XII). Nomenclature and Abbreviations.
- XIII). Bibliography
- XIV). Source Code.

SCHEME OF EXAMINATION AND SYLLABUS

Post Graduate Diploma in Computer Application

Session 2020-21



@M.G.S. UNIVERSITY, BIKANER

Session 2020-21

SCHEME OF EXAMINATION

1. ELIGIBILITY FOR ADMISSION

Graduates of any statutory university shall be eligible for admission to the PGDCA Course. (Eligibility Marks/ Relaxation to SC/ST etc. as per Government/University Rules)

2. PASS CRITERIA

The examinee has to secure at least 36% marks to pass the examination and 25% marks in each individual paper. Even if he/she will be failed in one paper/course, he/she will be declared fail. She/he however should be allowed one more chance to take the examination as Ex-student. In such a case, the marks of practical/ tutorials etc shall be carried forward for the said purpose.

3. CLASSIFICATION OF SUCCESSFUL CANDIDATE

Division	Total Marks
First Division	60% and above
Second Division	Above 48% and below 60%
Pass	Above 36% and below 48%
Fail	Below 36%

4. INSTRUCTIONS TO PAPER SETTER

The question paper contains 3 sections. **Section-A** consists of 10 questions (2 questions from each unit of syllabus). **Section-B** consists of 10 questions (2 questions from each unit of syllabus). **Section-C** consists of 5 questions (1 question from each unit syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively

5. WORKLOAD

At least 3 classes for theory class and 3 classes for practical lab should be assigned per week for each paper.

6. INSTRUCTIONS FOT PRACTICAL EXAMINATION

Marks Distribution for Practical Exam -

Each practical exam is to be conducted by two examiners one External and one Internal. External examiner should be senior lecturer from jurisdiction of MGS University. External examiner will prepare question paper of Practical Examination. Students have to perform exercise on computer. Exercise must be written in answer books in proper documentation.

Marks distribution for Practical of 50 marks is as under

- | | |
|--|----------|
| i) Three Exercise of 10 marks each
(Logic 04, Execution 03, Documentation 03) | 30 Marks |
| ii) Viva-Voce | 10 Marks |
| iii) Laboratory Exercise File | 10 marks |

Marks distribution for Project of 100 marks is as under

- | | |
|--|----------|
| i) Project Dissertation and Presentation | 75 marks |
| ii) External Viva Voce | 25 marks |

Teaching and Examination scheme

Paper	Paper Name(Theory)	Lect/ week	Tuto/ week	Exam Hours	Max. Marks	Min. Pass. Marks
Theory Papers						
PGDCA-101	Computer Organization	3	1	3	50	13 (25%)
PGDCA-102	Programming with C++	3	1	3	50	13 (25%)
PGDCA-103	Database System	3	1	3	50	13 (25%)
PGDCA-104	Operating System	3	1	3	50	13 (25%)
PGDCA-105	Computer Networks	3	1	3	50	13 (25%)
Total of Theory Papers					250	90 (36% aggregate)
Paper Name (Practical)						
PGDCA-106	Research Project/ Case Study	3	1	3	100	25 (25%)
PGDCA107	C++ Lab	3		3	50	13 (25%)
PGDCA 108	DBMS Lab	3		3	50	13 (25%)
Total of Practical Papers					200	72 (36% aggregate)

Grand Total (Theory 250 + Practical 200)	450	162 (36% aggregate)
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Paper Code: PGDCA-101

Paper Name : Computer Organization

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

The question paper contains 3 sections. **Section-A** consists of 10 questions (2 questions from each unit of syllabus). **Section-B** consists of 10 questions (2 questions from each unit of syllabus). **Section-C** consists of 5 questions (1 question from each unit syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively.

Unit I

Components of a Computer: Processor, Memory, Input-Output Unit, Difference between Organization and Architecture, Hardware Software Interaction. **Number System:** Concept of Bit and Byte, types and conversion. **Complements:** 1's complement, 2's complement. **Binary Arithmetic:** Addition, overflow, subtraction, multiplication (booth's algorithm) and division algorithm.

Unit II

Logic gates: Boolean Algebra, Map Simplification. **Combinational circuits:** Half Adder, Full Adder, Decoders, Multiplexers. **Sequential circuits:** Flip Flops- SR, JK, D, T Flip-Flop.

Unit III

Input Output Organization: Peripheral devices, I/O Interface, Asynchronous Data Transfer, Modes of Data Transfer, Direct Memory Access, I/O Processor.

Unit IV

Memory Organization: Types and capacity of Memory, Memory Hierarchy, Cache Memory, Virtual Memory.

Unit V

Intel 8085 Microprocessor: Introduction, ALU, Timing and Control Unit, Register Set, Data and Address Bus, Addressing modes, Complete Intel 8085 Instruction set, Instruction format, Opcode and Operand, Word Size, Intel 8085 programs.

Suggested Readings

1. Computer System Architecture, By M. Morris Mano (Pearson, Prentice Hall)
2. Carter Nicholas, "Computer Architecture", Schaun outline Sevier, Tata McGraw-Hill.
3. J.P. Hayes, "Computer Architecture & Organization", Tata McGraw Hill

4. Digital Computer Fundamentals By Thomas C. Batee (McGraw Hill)
5. Microprocessor Architecture, Programming, and Application With the 8085 By Ramesh Gaonkar (PENRAM)
6. Fundamentals of Microprocessor and Microcomputes By B.Ram (Danpat Rai Publications)

Paper Code: PGDCA-102

Paper Name : Programming with C++

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

The question paper contains 3 sections. **Section-A** consists of 10 questions (2 questions from each unit of syllabus). **Section-B** consists of 10 questions (2 questions from each unit of syllabus). **Section-C** consists of 5 questions (1 question from each unit syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively.

Unit I

Object Oriented System: Difference Between Procedural and Object Oriented Languages, Object Oriented Paradigm, Inheritance, Polymorphism, Abstraction, Encapsulation, Benefits and Application of Oops. Introduction to C++: Character Set, Token, Constants, Variables and Data Types, Enumeration Types, Operators, Expressions, Operator Precedence and Associativity, Input, Output, Conditional Statements, Scope of Variables, Type Conversion.

Unit II

Iteration, Break, Continue, goto; Pointers: Introduction, implementation advantage and disadvantage. Functions - Standard and User-Defined Function, Recursive Function, Passing By Value And Reference, Function Overloading.

Unit III

Array: introduction, advantage, One, Two and Multidimensional, String Processing. Class: Introduction to Class and Object, Declaring Members and Methods in a class, declaring objects.

Unit IV

Functions and objects, Inline Function, Friend Functions and Its Usage, Abstract Class, Function Overriding. Constructor and Destructor- Needs and Its Usage, Types of Constructors, Destructor, Static Data Members and Methods. Inheritance - Need of Inheritance, Types of Inheritance and its implementation.

Unit V

Operator Overloading: Need and Rules of Operator Overloading, Overloading Through Member Function and Friend Function. Compile Time and Run Time Polymorphism- Virtual Function and virtual class. **Additional Features of C++11, C++14 and C++17.**

Suggested Readings

1. Object Oriented Programming With C++ By E. Balagurusamy (Tata Mcgraw Hill)
2. C++ The Complete Reference By Herbert Schildt (Tata Mcgraw Hill)
3. Object Oriented Programming With C++ By Schaum Series (Tata Mcgraw Hill)
4. C++11 for Programmers (Deitel Developer) by Paul J. Deitel (Author), Harvey M. Deitel, Prentice Hall; 2nd edition
5. Professional C++ by Marc Gregoire, Nicholas A. Solter and Scott J.Kleper (Goodreads Publications)
6. A Tour of C++ by Bjarne Stroustrup, 2018
7. C++17 in Detail by Bartłomiej Filipek

Paper Code: PGDCA-103

Paper Name : Database Management

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

The question paper contains 3 sections. **Section-A** consists of 10 questions (2 questions from each unit of syllabus). **Section-B** consists of 10 questions (2 questions from each unit of syllabus). **Section-C** consists of 5 questions (1 question from each unit syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively.

Unit I

Introduction: Characteristics of database approach, Advantages, Database system architecture, Overview of different types of Data Models and data independence, Schemas and instances, Database languages and interfaces; E-R Model : Entities, Attributes, keys, Relationships, Roles, Dependencies, E-R Diagram.

Unit II

Introduction to Relational model, Constraints: Domain, Key, Entity integrity, Referential integrity; Keys: Primary, Super, Candidate, Foreign; Relational algebra: select, project, union, intersection, minus, cross product, different types of join, division operations; aggregate functions and grouping.

Unit III

SQL: Data Types, statements: select, insert, update, delete, create, alter, drop; views, SQL algebraic operations, nested queries; Stored procedures: Advantages, Variables, creating and calling procedures, if and case statements, loops, Cursors, Functions, Triggers.

Unit IV

Normalization: Definition, Functional dependencies and inference rules, 1NF, 2NF, 3NF and BCNF; Transactions processing: Definition, desirable properties of transactions, serial and non-serial schedules, concept of serializability, conflict-serializable schedules.

Unit V

Concurrency Control: Two-phase locking techniques, dealing with Deadlock and starvation, deadlock prevention protocols, basic timestamp ordering algorithm; Overview of database recovery techniques; concept of data warehousing.

Suggested Readings

1. Fundamentals of Database Systems, Ramez A. Elmasri, Shamkant Navathe, 5th Ed (Pearson)

2. Database System Concepts By Korth, Silberschatz, Sudarshan (Mcgraw Hill)
3. An Introduction to Database Systems By Bipin C. Desai (Galgotia Publication.)
4. SQL, PL/SQL Programming By Ivan Bayross (BPB)
5. Commercial Application Development Using Oracle Developer 2000 By Ivan Bayross (BPB)
6. <http://www.mysqltutorial.org/mysql-stored-procedure-tutorial.aspx>

Paper Code: PGDCA-104

Paper Name : Operating System

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

The question paper contains 3 sections. **Section-A** consists of 10 questions (2 questions from each unit of syllabus). **Section-B** consists of 10 questions (2 questions from each unit of syllabus). **Section-C** consists of 5 questions (1 question from each unit syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively.

Unit I

Introduction to Operating System, layered Structure, Functions, Types; Process: Concept, Process States, PCB; Threads, System calls; Process Scheduling: types of schedulers, context switch.

Unit II

CPU Scheduling, Pre-Emptive Scheduling, Scheduling Criteria- CPU Utilization, Throughput, Turnaround Time, Waiting Time, Response Time; Scheduling Algorithms- FCFS, SJF, Priority Scheduling, Round Robin Scheduling, MLQ Scheduling, MLQ With Feedback.

Unit III

Synchronization: Critical Section Problem, Requirements for a solution to the critical section problem; Semaphores, simple solution to Readers-Writers Problem. Deadlock: Characterization, Prevention, Avoidance, Banker's Algorithm, Recovery from Deadlock.

Unit IV

Memory Management: Physical and virtual address space, Paging, Overview of Segmentation; Virtual Memory Management: Concept, Page Replacement techniques- FIFO, LRU, Optimal. Linux: features of Linux, steps of Installation, Shell and kernel, Directory structure.

Unit V

Linux: Users and groups, file permissions, commands- ls, cat, cd, pwd, chmod, mkdir, rm, rmdir, mv, cp, man, apt, cal, uname, history etc. ; Installing packages; Shell scripts: writing and executing a shell script, shell variables, read and expr, decision making (if else), for and while loops.

Suggested Readings

1. Operating System Principals By Abraham Silberschatz, Peter Baer Galvin (John Wiley And Sons Inc.)
2. Operating System Concepts And Design By Milan Milen Kovic (Tata Mcgraw Hill)

3. Modern Operating System Andrew S. Tanenbaum, Herbert Bos
4. Linux in easy steps, Mike McGrath, in easy steps limited
5. Unix concepts and applications , TMH, Sumitabha Das

Paper Code: PGDCA-105

Paper Name : Computer Networks

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

The question paper contains 3 sections. **Section-A** consists of 10 questions (2 questions from each unit of syllabus). **Section-B** consists of 10 questions (2 questions from each unit of syllabus). **Section-C** consists of 5 questions (1 question from each unit syllabus). The word limit of part A, B and C are 50, 200 and 500 respectively.

Unit - I

Data Communication and Networking: Overview, Network Types, LAN Technologies, Topologies, Models- OSI Model, TCP/IP Stack, Security

Unit - II

Physical Layer: Introduction, Impairments, Performance, Digital Transmission, modes, digital to digital, analog to digital, Analog Transmission, digital to analog, analog to analog, Transmission media, Wireless Transmission, **Switching techniques:** Circuit Switching, Packet switching, Message switching.

Unit - III

Data Link Layer: Introduction, Data Link Control: Line Discipline- Enq/Ack, Poll/Select, **Flow Control** : Stop And Wait, Sliding Window, **Error Control** : ARQ, Stop and Wait ARQ, Sliding Window ARQ.

Unit - IV

Network Layer: Introduction, Network Addressing, Routing, Internetworking, Tunneling, Packet Fragmentation, Network Layer Protocols, ARP, ICMP, IPv4, IPv6

Unit V

Transport Layer: Introduction, Function, End to end communication, Transmission Control Protocol, User Datagram Protocol

Application Layer: Introduction, Client-Server Model, Application Protocols, Network Services

Suggested Readings

1. Data Communication and Networking By Forozan (Tata McGraw Hill)
2. Data Communication And Computer Networks By Dr. Madhulika Jain, Satish Jain (BPB)
3. William Stallings, "Data and Computer Communications", Pearson Education, 2008.

4. Rajneesh Agrawal and Bharat Bhushan Tiwari, "Data Communication and Computer Networks", Vikas Publishing house Ltd. , 2005.
5. A. S. Tanenbaum, "Computer Networks", Fourth Edition, Pearson Education.

Paper Code: PGDCA-106

Paper Name : Project

Scheme of Examination

Maximum Marks: 50

Duration: 3 Hours

Minimum Passing Marks: 13

Marks distribution for Project of 100 marks is as under-

i) Project Dissertation and Presentation	75 marks
ii) External Viva Voce	25 marks

Practical Training and Project Work:

1. Project Work may be done individually or in groups in case of bigger projects(maximum two). However if project is done in group each student must be given a responsibility for a distinct module and care should be taken to monitor the individual student.
2. Project Work can be carried out in the college or outside with prior permission of college.
3. The Student must submit a synopsis of the project report to the college for approval. The Project Guide can accept the project or suggest modification for resubmission. Only on acceptance of draft project report the student should make the final copies.
4. **Project report should be hand written**

Submission Copy:

The Student should submit Spiral bound copy of the project report.

Format of the Project:

(a) **Paper:**

The Report shall be typed on White Paper of A4 size.

(b) **Final Submission:**

The Report to be submitted must be original.

(c) **Typing:**

Font:- Times New Roman

Heading:- 16 pt., Bold

Subheading:- 14 pt, Bold

Content:- 12 pt.

Line Spacing:- 1.5 line.

Typing Side :-One Side

Font Color:- Black.

(d) Margins:

The typing must be done in the following margin:

Left : 0.75"

Right: 0.75"

Top: 1"

Bottom: 1"

Left Gutter: 0.5"

(e) Binding:

The report shall be Spiral Bound.

(f) Title Cover:

The Title cover should contain the following details:

Top: Project Title in block capitals of 16pt.

Centre: Name of project developer's and Guide name.

Bottom: Name of the university, Year of submission all in block capitals of 14pt letters on separate lines with proper spacing and centering.

(g) Blank sheets:

At the beginning and end of the report, two white blank papers should be provided, one for the Purpose of Binding and other to be left blank.

(h) Content:

- I).** Acknowledgement
- II).** Institute/College/Organization certificate where the project is being developed.
- III).** Table of contents
- IV).** A brief overview of project
- V).** Profiles of problem assigned
- VI).** Study of Existing System
- VII).** System Requirement
- VIII).** Project plan
 - o Team Structure
 - o Development Schedule
 - o Programming language and Development Tools
- IX).** Requirement Specification
- X).** Design

- Detailed DFD's and Structure Diagram
- Data structure, Database and File Specification

XI). Project Legacy

- Current Status of project
- Remaining Areas of concern
- Technical and Managerial Lessons Learnt
- Future Recommendations

XII). Nomenclature and Abbreviations.

XIII). Bibliography

XIV). Source Code.

M.Sc. Computer Sc. (Cyber Security)

Session 2020-21

Examination 2021-22

ELIGIBILITY FOR ADMISSION

Graduates possessing 50% marks in any faculty of any statutory university who have studied Computer Science/ Computer Application as a main or vocational subject for three years shall be eligible for admission to the M.Sc. Cyber Security Course (Relaxation to SC/ST etc. as per Prevailing Rules)

PASS CRITERIA

For passing in the examination, a candidate is required to obtain at least 25% in each paper (Internal + External) and 36% marks in the total aggregate in theory and 36% marks in practical separately (in each semester examination).

CLASSIFICATION OF SUCCESSFUL CANDIDATES

As per university norms

Scheme of Examination

1. English shall be the medium of instructions and examination.
2. Examinations shall be conducted at the end of course as per the Academic Calendar notified by the Maharaja Ganga Singh University of Bikaner.

Instructions for Paper setters

3. The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus).
4. The word limit of part A, B and C are 50, 200 and 500 respectively
 - 4.1 The duration of written examination for each paper shall be of three hours and Practical examination shall be for 3 hours duration.
 - 4.2 The minimum attendance required by a candidate will be as per university rules.
5. With regard to dissertation/project/training, the scheme of evaluation shall be as follows:
 - 5.1.1 The candidate has to submit a dissertation in a bound form in three copies at the end of course which would be evaluated by an external examiner. Total marks for dissertation shall be 50 (40 external + 10 internal marks).
 - 5.1.2 The dissertation/case study/project/training/review will be evaluated at the end of course by an external examiner.
 - 5.1.3 Students are advised to complete dissertation/project/training (Review or experimental) preferably in some outside research institute or industry or otherwise in the University.
6. An educational tour may be organized for students within or outside the State under the supervision of faculty members of the department. Traveling expenses of the teacher/s will be borne by the university as per rules.

**Teaching and Examination scheme for
M.Sc. Cyber Security
Semester I**

Paper Code	Paper Name	Exam Hours	Maximum Marks		Minimum passing Marks
			Internal Marks	External Marks	
MCSEC 101	Mathematical Foundations for Cyber Security	3	10	40	13
MCSEC 102	Cyber Crime, Cyber Laws and IPR	3	10	40	13
MCSEC 103	Computer Networks	3	10	40	13
MCSEC 104	C++ and Data Structures	3	10	40	13
MCSEC 105	Combined Practical	3	25	75	36
Grand Total(Theory+ Practical)				300	

**Teaching and Examination scheme for
M.Sc. Cyber Security
Semester II**

Paper Code	Paper Name	Exam Hours	Maximum Marks		Minimum passing Marks
			Internal	External	
MCSEC 201	Information Security and Cryptography	3	10	40	13
MCSEC 202	Ethical Hacking	3	10	40	13
MCSEC 203	DBMS	3	10	40	13
MCSEC 204	Python	3	10	40	13
MCSEC 205	Combined Practical	3	25	75	36
Grand Total(Theory+ Practical)				300	

**Teaching and Examination scheme for
M.Sc. Cyber Security
Semester III**

Paper Code	Paper Name	Exam Hours	Maximum Marks		Minimum passing Marks
			Internal	External	
MCSEC 301	Cyber Forensics, Audit and Investigation	3	10	40	13
MCSEC 302	Biometric Security	3	10	40	13
MCSEC 303	Wireless LAN and Mobile Computing	3	10	40	13

MCSEC 304	Operating Systems	3	10	40	13
MCSEC 305	Combined Practical	3	25	75	36
Grand Total(Theory+ Practical)				300	

**Teaching and Examination scheme for
M.Sc. Cyber Security
Semester IV**

Paper Code	Paper Name	Exam Hours	Maximum Marks		Minimum Passing Marks
			Internal	External	
MCSEC 401	Malware Analysis	3	10	40	13
MCSEC 402	Mobile and wireless security	3	10	40	13
MCSEC 403	Intrusion Detection and Prevention Systems	3	10	40	13
MCSEC 404	Project/Dissertation	3	10	40	13
MCSEC 405	Combined Practical	3	25	75	36
Grand Total(Theory+ Practical)				300	

Note:

Instructions for Paper setters

1. The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus).
2. Each practical exam is to be conducted by two examiners one External and one Internal. External examiner should be senior lecturer from jurisdiction of other universities. Marks distribution for Practical of 40 marks is as under
 - a) Practical Examination exercise of 3 questions 30 marks
 - b) Viva-Voce 5 marks
 - c) Laboratory Exercise File 5 marks
3. Marks distribution for Project of 40 marks is as under
 - a. External Evaluation-
 - i. Project Dissertation 30 marks
 - ii. Presentation 5 marks
 - iii. External Viva Voce 5 marks
 - b. Internal Evaluation- Dissertation 10 marks
4. The student has to complete two months career oriented summer training from any firm/organization. If the student does not get a chance to go for training, he/she can choose a research topic and can complete dissertation under the supervision of any of the faculty in his college.
5. The student who has opted training, has to provide a signed certificate from the firm/organization authority stating that the student has spent two months as a trainee in his organization/firm. The student who has opted for dissertation, has to submit his/her dissertation report with a certificate from his supervisor.
6. In both the cases a student has to present his work in front of all the faculty members and fellow students at the starting of the next session.
7. At least 3 hours for lectures and one hour for tutorial should be allotted per week for each theory paper.
8. A slot of at least 2 hours per week should be allotted for each practical paper.

Duration: 3 Hours

Maximum Marks: 50

Minimum Passing Marks: 13

MCSEC-101 Mathematical Foundations for Cyber Security

Instructions for Paper setters

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus).

Note: Scientific Calculator may be allowed in the examination.

Unit I

Overview of Sets, Basics of counting, Permutations and Combinations, Relations-equivalence and partial orders. Concept of time complexity and asymptotic notations. **Graph Theory:** Euler graphs, Hamiltonian paths and circuits, planar graphs, rooted and binary trees, cut sets, graph colorings and applications, chromatic number, chromatic partitioning and polynomial, matching.

Unit II

Analytic Number Theory: Prime numbers, Euclid's lemma, Euclidean algorithm, basic properties of congruences, residue classes and complete residue systems, Euler-Fermat theorem, Lagrange's theorem and its applications, Chinese remainder theorem, primitive roots. Algebra: groups, cyclic groups, rings, fields, finite fields, lattices and their applications to cryptography.

Unit III

Linear Algebra: vector spaces and subspaces, linear independence, basis and dimensions, linear transformations and applications. **Probability theory:** basics, conditional probability, Bayes theorem, random variables – discrete and continuous, normal probability distribution, central limit theorem, stochastic process, Markov chain. **Coding Theory:** equivalence of codes, linear codes. Overview of Pseudorandom Number Generation.

Suggested Readings:

1. Discrete Mathematics and its applications by K. H. Rosen, seventh edition, TMH
2. Ivan Niven, Herbert S. Zuckerman, and Hugh L. Montgomery, 'An introduction to the theory of numbers', John Wiley and Sons 2004.
3. Douglas Stinson, 'Cryptography – Theory and Practice', CRC Press, 2006.
4. Sheldon M Ross, "Introduction to Probability Models", Academic Press, 2003.
5. H. Anton, "Elementary Linear Algebra", John Wiley & Sons, 2010.
6. C.L. Liu, 'Elements of Discrete mathematics', McGraw Hill, 2008.
7. Fraleigh J. B., 'A first course in abstract algebra', Narosa, 1990.
8. Joseph A. Gallian, "'Contemporary Abstract Algebra', Narosa, 1998.
9. D.S. Malik, J. Mordeson, M.K.Sen, Fundamentals of abstract algebra, TataMcGrawHill

Duration: 3 Hours

Maximum Marks: 50

MCSEC-102 Cyber Crime, Cyber Laws and IPR

Instructions for Paper setters

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus).

Unit I

Introduction to cyber crime and cyber law, cyberspace and information technology, Nature and scope of cyber crime, Jurisdiction of cybercrime. Important definitions under IT Act 2000, Cyber crime issues: unauthorized access, White collar crimes, viruses, malwares, worms, Trojans, logic bomb, Cyberstalking, voyeurism, obscenity in internet, Software piracy

Unit II

IT Act 2000, offences under IT Act and IT(amendment) Act, 2008. CRPC overview, Role Of Intermediaries, Electronic Evidence, Cyberterrorism, espionage, warfare and protection system. Overview of amended laws by the IT Act, 2000: The Indian Penal Code, 1860, The Reserve Bank of India Act 1934, Cyber Theft and the Indian Telegraph Act,1885. Digital Signatures and certificate-legal issues.

Unit III

Intellectual Property rights: Introduction to IP, Copyright, Related Rights, Trademarks, Geographical Indications, Industrial Design, Patents, Licensing and transfer of technology, WIPO Treaties , CopyrightsAct, PatentsAct, Trademark Act.

Suggested Readings:

1. Cyber Security, Cyber Crime and Cyber Forensics: Applications and Perspectives, Raghu Santanam, M. Sethumadhavan, Information Science Reference.
2. Pfleeger, Charles P.and ShariL. Pfleeger.Security in Computing, 4th Edition. Upper Saddle River, NJ:Prentice Hall,2008.
3. Cyber crime:Security and Surveillance in the Information Age,Douglas Thomas; Brian Loader.
4. Computer Crime:A Crime-Fighters Handbook by David Icove.
5. Crime in the Digital Age: Controlling Telecommunications and Cyber space Illegality,Peter N. Grabosky.
6. Cyber law–The Indian Perspective By Pavan Duggal,Saakshar Law Publications.
7. Jonathan Rosenoer,“Cyber Law:The law of the Internet”, Springer-Verlag, 1997.
8. Mark F Grady,Fransesco Parisi,“The Law and Economics of Cyber Security”,Cambridge University Press,2006.

MCSEC-103 Computer Networks

Instructions for Paper setters

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus).

Unit I

Introductory Concepts: Goals and Applications of Networks, Network structure and architecture, the OSI reference model, services, networks topology. Physical Layer: The Physical Layer, Theoretical Basis for Data Communication, Guided Transmission Media, Wireless Transmission, Overview of Digital Signal Encoding Formats, Digital Modulation – ASK, FSK, PSK, PSK, Digitization – Sampling Theorem, PCM, DM, Analog Modulation – Introducing AM, FM, PM, The Mobile Telephone System.

Unit II

The Data Link Layer: Data Link Layer Design Issues, Error Detection and Correlation, Flow Control Protocols, Stop-and-wait Flow Control, Sliding – Window Flow Control, Error Control, Stop-and-wait ARQ, Go-back-N; Example of Data Link Protocols-HDLC Medium access sub layer: Channel allocations, ALOHA Protocols, Carrier Sense Multiple Access Protocols, Ethernet, wireless LANs, BlueTooth, Data Link Layer Switching.

Unit III

Network Layer: Point-to-Point network, routing algorithms, congestion control, internetworking, Quality Control, Internetworking, The Network Layer in the Internet, IP packet, IP addresses, IPv6. Transport Layer: Design Issue, connection management, TCP window management, User Datagram Protocol, Transmission Control Protocol, Performance Issues. Application Layer: DNS, E-Mail, WWW, Multimedia, application layer protocols.

Suggested Readings

1. Forouzan, “Data Communication and Networking”, TMH, 4th Edition.
2. A.S. Tanenbaum, “Computer Networks”, PHI, 4th Edition.
3. W. Stallings, “Data and Computer Communication”, Macmillan Press.
4. Comer, “Computer Networks and Internet”, PHI. 5.Comer, “Internetworking with TCP/IP”, PHI.
5. W. Stallings, “Data and Computer Communication”, McMillan.

Duration: 3 Hours

Maximum Marks: 50

Minimum Passing Marks: 13

MCSEC-104 C++ and Data Structures

Instructions for Paper setters

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus).

Unit I

Basics : Overview of OOPs, if-else statements, loops (for, while). **Functions** : Overview, passing arguments by value and reference, recursive function, pointers. **Arrays**: Overview, array and function, array and pointers. **Class**: Overview, static data members, Inline Function, Constructors and Destructors.

Unit II

Inheritance: usage, types, compile time and run time polymorphism, overloading and overriding, virtual function, friend function, abstract class. String handling, String class, Overview of Templates. **Searching**: Linear Search, Binary Search. **Sorting**: Insertion Sort, Quick sort.

Unit III

Algorithm: Time and Space complexity of Algorithm. **Overview and applications of abstract data types**: Linked List, Stack, Queue. **Trees** : Basic terminologies. **Binary Tree** : Representation as Array, Basic operations, **Tree Traversal** : Inorder, Preorder, Postorder, Application of Binary Tree.

Suggested Readings

1. Object Oriented Programming With C++ By E. Balagurusamy (Tata Mcgraw Hill)
2. C++ The Complete Reference By Herbert Schildt (Tata Mcgraw Hill)
3. Object Oriented Programming With C++ By Schaum Series (Tata Mcgraw Hill)
4. C++11 for Programmers (Deitel Developer) by Paul J. Deitel (Author), Harvey M. Deitel, Prentice Hall; 2nd edition
5. Professional C++ by Marc Gregoire, Nicholas A. Solter and Scott J.Kleper (Goodreads Publications)
6. A Tour of C++ by Bjarne Stroustrup, 2018
7. C++17 in Detail by Bartłomiej Filipek
8. Expert Data Structure with 'C' By R.B Patel (Khana Book Publishing Co.(P))
9. Data structure By Lipschutz (Tata McGraw Hill)
10. Data Structure By Yashvant Kanitkar (BPB)
11. An Introduction to Data Structures with Applications By Jean-Paul Tremblay, Paul G.Sarerson (Tata McGraw Hill)

12. Data Structure Using C and C++ By Yedidyah Langsam, Moshe J. Augenstein,
Arora M. Tenenbaum (Prentice- Hall India)

Duration: 3 Hours

Maximum Marks: 50

Minimum Passing Marks: 13

MCSEC-201 Information Security and Cryptography

Instructions for Paper setters

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus).

Unit I

Information Security: Introduction, CNSS Security Model, Components of Information System, Approaches to Information Security Implementation, The Security Systems Development Life Cycle. **Cryptography:** Concept, traditional ciphers like Caesar, Substitution, Vigenere, Transposition.

Unit II

Symmetric key Ciphers: Concept and Types, Structure and analysis of DES, Security of DES, Structure and analysis of AES. **Asymmetric key Ciphers:** Concept of public key cryptosystems, RSA algorithm, Diffie-Hellman Key exchange. **Message Authentication and Hash Functions:** Authentication requirements and functions, MAC and Hash Functions.

Unit III

MAC Algorithms: Secure Hash Algorithm, Digital signatures, Kerberos. Concept and applications of IPsec, SSL, TLS, SET, PGP and S/MIME. Concept of steganography. **Cryptanalysis:** Concept, Linear Cryptanalysis, Differential Cryptanalysis.

Suggested Readings:

1. Principles of Information Security : Michael E. Whitman, Herbert J. Mattord, CENGAGE Learning, 4th Edition.
2. Cryptography and Network Security : William Stallings, Pearson Education, 4th Edition.
3. Cryptography and Network Security : Forouzan Mukhopadhyay, McGraw Hill, 2nd Edition.

Duration: 3 Hours

Maximum Marks: 50

Minimum Passing Marks: 13

MCSEC-202 Ethical Hacking

Instructions for Paper setters

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus).

Section I

Introducing Hacking, Different types of hacking, Phases of hacking, Installation and configuration of Kali Linux, Overview of directory structure, Usage of basic commands; Malwares – Virus , Worms, Trojan; Information gathering using NMAP and ZenMAP .

Section II

Metasploit: Exploiting System Software and Privilege, Metasploit Social Engineering Attack. Working and Network analysis with Wireshark , Network and web scanning about target , Packet captures and man-in-the-Middle attacks. Hacking using different social Engineering techniques.

Section III

DoS and DDoS attacks, Hardware hacking, Hijack sessions, Hacking web servers, Website Hacking , SQL Injection and SQLMAP, Database assessment , Router and Wi-Fi attacks, different types of password attacks, phishing attacks.

Suggested Readings:

1. Basic Security Testing with Kali Linux, by Daniel Dieterle, freely available online.
2. Gray Hat Hacking The Ethical Hacker's Handbook, Branko Spasojevic, TMH, 2018.
2. Ethical Hacking and Penetration Testing Guide, by Rafay Baloch , Auerbach Publications.
3. Kali Linux Revealed,by Raphaël Hertzog, JimO’Gorman, and Mati Aharoni, offsec press,<https://kali.training/downloads/Kali-Linux-Revealed-1st-edition.pdf>
5. Kali Linux - An Ethical Hacker's Cookbook, by Himanshu Sharma , Packt Publishing Limited

Web resources:

1. <https://nptel.ac.in/courses/106/105/106105217/>

Duration: 3 Hours

Maximum Marks: 50
Minimum Passing Marks: 13

MCSEC-203 DBMS

Instructions for Paper setters

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus).

Unit I

Introduction: Characteristics of database approach, Advantages, Database system architecture, Overview of different types of Data Models and data independence, Schemas and instances, Database languages and interfaces; **E-R Model** : Entities, Attributes, keys, Relationships, Roles, Dependencies, E-R Diagram; Normalization: Definition, Functional dependencies and inference rules, 1NF, 2NF, 3NF and BCNF.

Unit II

Introduction to Relational model, Constraints: Domain, Key, Entity integrity, Referential integrity; Keys: Primary, Super, Candidate, Foreign; **Relational algebra:** select, project, union, intersection, minus, cross product, different types of join, division operations; aggregate functions and grouping; **SQL:** Data Types, statements: select, insert, update, delete, create, alter, drop; views, SQL algebraic operations, nested queries; Stored procedures: Advantages, Variables, creating and calling procedures, if and case statements, loops, Cursors, Functions, Triggers.

Unit III

Transactions processing: Definition, desirable properties of transactions, serial and non-serial schedules, concept of serializability, conflict-serializable schedules; **Concurrency Control:** Two-phase locking techniques, dealing with Deadlock and starvation, deadlock prevention protocols, basic timestamp ordering algorithm; Overview of database recovery techniques; concept of data warehousing.

Suggested Readings:

1. Fundamentals of Database Systems, Ramez A. Elmasri, Shamkant Navathe, 5th Ed (Pearson)
2. Database System Concepts By Korth, Silberschatz, Sudarshan (Mcgraw Hill)
3. An Introduction to Database Systems By Bipin C. Desai (Galgotia Publication.)
4. SQL, PL/SQL Programming By Ivan Bayross (BPB)

5. Commercial Application Development Using Oracle Developer 2000 By Ivan Bayross (BPB)

Web Resources

1. <http://www.mysqltutorial.org/mysql-stored-procedure-tutorial.aspx>

Duration: 3 Hours

Maximum Marks: 50

Minimum Passing Marks: 13

MCSEC-204 Python

Instructions for Paper setters

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus).

Unit I

Basics: Python Interpreter, writing code in Jupyter Notebook, Indentation, comments, importing a module, binary operators, standard scalar data types, type casting, if-else statements, loops(while, for), pass, range, ternary expressions. Data Structures and Sequences: Tuples, Lists and slicing, Built-in Sequence functions, Dictionary, Sets; List, Set, and Dict Comprehensions.

Unit II

Functions: Namespaces, Scope, and Local Functions; Returning Multiple Values, Anonymous (Lambda) Functions, Partial Argument Application, Generators, Errors and Exception handling. Basic File Handling. Objects and Methods in Python. NumPy: creating N-dimensional arrays, arithmetic with NumPy arrays, basic indexing and slicing, Psuedorandom number generation.

Unit III

Pandas: Overview of Series and DataFrames, reading data from csv file, DataFrame operations- working with data using functions like head, tail , info, shape, reshape, columns, isnull, dropna, mean, sum, describe, value_counts, corr, loc, iloc, apply. Matplotlib- plotting basic figures, subplots, line plots, bar plots, histograms, scatter plots. Overview of Scikit-learn, SciPy, networkx. Applications of python.

Suggested Readings:

1. Python for Data Analysis: Data Wrangling with Pandas, NumPy, and Ipython, by Wes McKinney, O'Reilly Media, 2017
2. Python All-in-One for Dummies, by John Shovic and Alan Simpson, John Wiley & Sons, Inc., 2019
3. Programming in Python 3: A Complete Introduction to the Python Language, Mark Summerfield, Pearson.
4. Swaroop, C. H. (2003). A Byte of Python. Python Tutorial.
5. Introduction to Computation and Programming Using Python. By John V. Guttag, MIT Press.
6. Learning Python , Mark Lutz, David Ascher, O'Reilly
7. T. Budd, Exploring Python, TMH, 1st Ed, 2011

Web Resources

1. <https://www.learnpython.org/>
2. <https://nptel.ac.in/courses/106/106/106106212/>
3. <http://greenteapress.com/thinkpython/thinkpython.pdf>
4. Python tutorial: <https://docs.python.org/3/tutorial/index.html>

Duration: 3 Hours

Maximum Marks: 50

Minimum Passing Marks: 13

MCSEC-301 Cyber Forensics, Audit and Investigation

Instructions for Paper setters

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus).

Unit I

Filesystem: CHS, LBA, HPA, write blockers, Extracting & recovering partitions, MBR, DOS partition table, Extended partition table, RAID; NTFS file system:Architecture, File creation,File deletion, Compression, encryption and indexing; Extended file systems: EXT4, Architecture, File creation, File deletion and Journaling; Other Disk structures; Windows and Linux boot process;File system acquisition and recovery.

Unit II

Windows Forensic Analysis: Window artifacts, Evidence volatility,System time, Logged on user(s), Open files, MRUs, Network information, Process information, Service information, Windows Registry, Startup tasks, Memory dumping; Document Forensics:PDF structure,PDF analysis, MS Office Document structure and analysis, Macros, Windows thumbnails.

Unit III

Mobile Forensics: SIM Card, Android architecture, Android File System, Android application; Virtual Machines, Network Forensics; Cyber crime investigation: Pre investigation,SOP for Investigation; Case scenarios:social media crime, Email investigation; CDR Analysis. Auditing: Internal Audit and IT Audit Function, IT Governance, Frameworks, Standards, and Regulations, Identifying information assets, Risk assessment and management.

Suggested Readings:

1. Computer Evidence-Collection and Preservation. Brown,C.L.T. Course Technology Cengage Learning.
2. Guide to Computer Forensics And Investigations Nelson, Bill; Phillips, Amelia; Enfinger, Frank; Steuat, Christopher Thomson Course Technology.
3. Computer Forensics–Computer Crime Scene Investigation. Vacca, John R. Charles River Media
4. Bunting, Steve and William Wei. EnCase Computer Forensics: The Official EnCE: EnCase Certified Examiner Study Guide. Sybex, 2006
5. Incident Response: Computer Forensics, Prorise, Chris, Kevin Mandia, and Matt Pepe, McGraw-Hill, 2014
6. IT Security Risk Control Management: An Audit Preparation Plan, Raymond Pompon, Apress 2016
7. Carrier, Brian. File System Forensic Analysis. Addison- Wesley Professional.

Duration: 3 Hours

Maximum Marks: 50

Minimum Passing Marks: 13

MCSEC-302 Biometric Security

Instructions for Paper setters

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus).

Unit I

Biometrics: Introduction, benefits of biometrics over traditional authentication systems, benefits of biometrics in identification systems, selecting a biometric for a system, Applications, Key biometric terms and processes, biometric matching methods, Accuracy in biometric systems.

Unit II

Physiological Biometric Technologies: Fingerprints- characteristics, strengths and weaknesses; Facial scan- characteristics, strengths and weaknesses; Iris scan- characteristics, strengths and weaknesses; Retina vascular pattern- characteristics, strengths and weaknesses; Hand scan - characteristics, strengths and weaknesses; DNA biometrics.

Unit III

Behavioral Biometric Technologies: Handprint Biometrics, overview of DNA Biometrics. Signature and handwriting technology- description, classification, keyboard/keystroke dynamics; Voice- data acquisition, feature extraction, characteristics, strengths and weaknesses. Multi biometrics and multi factor biometrics.

Suggested Readings:

1. Samir Nanavathi, Michel Thieme, and Raj Nanavathi : “Biometrics -Identity verification in a network”, 1st Edition, Wiley Eastern, 2002.
2. John Chirillo and Scott Blaul : “Implementing Biometric Security”, 1st Edition, Wiley Eastern Publication, 2005.
3. John Berger: “Biometrics for Network Security”, 1st Edition, Prentice Hall, 2004.
4. Paul Reid, Biometrics for network security, Hand book of Pearson, 2004

Duration: 3 Hours

Maximum Marks: 50

Minimum Passing Marks: 13

MCSEC-303 Wireless LAN and Mobile Computing

Instructions for Paper setters

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus).

Unit I

Wireless Networks: Introduction, Architecture, Wireless Switching Technology, Wireless Communication problem, Wireless Network Reference Model, Wireless, Wireless LAN: Infrared vs radio transmission, Infrastructure and Ad-hoc Network, IEEE 802.11: System Architecture, Protocol Architecture, 802.11b, 802.11a, Bluetooth: User Scenarios, Architecture.

Unit II

Global System for Mobile Communications (GSM): Mobile Services, System Architecture, Protocols, Localization & Calling, Handover, Security. GPRS: GPRS System, Architecture, UMTS: UMTS System Architecture. LTE: Long Term Evolution. Mobile Computing: Mobile communication, Mobile computing, Mobile Computing Architecture, Mobile Devices, Mobile System Networks, Mobility Management;

Unit III

Mobile Network Layer: Mobile IP: Goals, Assumptions, Entities and Terminology, IP Packet Delivery, Agent Discovery, Registration, Tunneling and Encapsulation, Optimizations, DHCP. Mobile Transport Layer: Traditional TCP, Indirect TCP, Snooping TCP, Mobile TCP, Fast retransmit/fast recovery, Transmission /time-out freezing, Selective retransmission, Transaction oriented TCP, TCP over 2.5G/3G Wireless Networks.

Suggested Readings:

1. Schiller, J. 2008. Mobile Communications. 2nd ed. India: Pearson Education.
2. Kumar, S. and Kakkasageri, M.S. "Wireless and Mobile Networks: Concepts and Protocols", Wiley India.
3. Kamal R. 2011. "Mobile Computing", 2nd Ed. Oxford University Press.
4. Talukder, A. K., Ahmed, H. and Yavagal, R.R. 2010. Mobile Computing: Technology, Applications and Service Creation, 2nd Ed. Tata McGraw Hill
5. Gast, M.S. "802.11 Wireless Networks: The Definitive Guide", O'Reilly Media.

Duration: 3 Hours

Maximum Marks: 50

Minimum Passing Marks: 13

MCSEC-304 Operating Systems

Instructions for Paper setters

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus).

Unit I

Introduction to Operating System, layered Structure, Functions, Types; Process: Concept, Process States, PCB; Threads, System calls; Process Scheduling: types of schedulers, context switch, CPU Scheduling, Pre-Emptive Scheduling, Scheduling Criteria- CPU Utilization, Throughput, Turnaround Time, Waiting Time, Response Time; Scheduling Algorithms- FCFS, SJF, Priority Scheduling, Round Robin Scheduling, MLQ Scheduling, MLQ With Feedback.

Unit II

Synchronization: Critical Section Problem, Requirements for a solution to the critical section problem; Semaphores, simple solution to Readers-Writers Problem. Deadlock: Characterization, Prevention, Avoidance, Banker's Algorithm, Recovery from Deadlock. Memory Management: Physical and virtual address space, Paging, Overview of Segmentation; Virtual Memory Management: Concept, Page Replacement techniques- FIFO, LRU, Optimal

Unit III

Linux: features of Linux, steps of Installation, Shell and kernel, Directory structure, Users and groups, file permissions, commands- ls, cat, cd, pwd, chmod, mkdir, rm, rmdir, mv, cp, man, apt, cal, uname, history etc. ; Installing packages; Shell scripts: writing and executing a shell script, shell variables, read and expr, decision making (if else, case), for and while loops.

Suggested Readings

1. Operating System Principles By Abraham Silberschatz, Peter Baer Galvin (John Wiley And Sons Inc.)
2. Operating System Concepts And Design By Milan Milen Kovic (Tata Mcgraw Hill)
3. Modern Operating System Andrew S. Tanenbaum, Herbert Bos
4. Linux in easy steps, Mike McGrath, in easy steps limited
5. Unix concepts and applications , TMH, Sumitabha Das

Duration: 3 Hours

Maximum Marks: 50

Minimum Passing Marks: 13

MCSEC-401 Malware Analysis

Instructions for Paper setters

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus).

Unit I

Introduction to malware, Types of malwares, Basic Static and Dynamic Analysis, Overview of Windows file format, PEView.exe, Patching Binaries , Disassembly(objdump, IDA Pro), Introduction to IDA, Introduction to Reverse Engineering, Extended Reverse Engineering using GDB and IDA;

Unit II

Advanced Dynamic Analysis - debugging tools and concepts, Malware Behavior - malicious activities and techniques, Analyzing Windows programs – WinAPI, Handles ,Networking , COM, Data Encoding, Malware Countermeasures , Covert Launching and Execution, Anti Analysis - Anti Disassembly, VM, Debugging;

Unit III

Packers – packing and unpacking, Intro to Kernel – Kernel basics, Windows Kernel API, Windows Drivers, Kernel Debugging, Rootkit Techniques- Hooking, Patching, Kernel Object Manipulation , Rootkit Anti-forensics , Covert analysis.

Suggested Readings:

1. Michael Sikorski and Andrew Honig, “ Practical Malware Analysis”, No Starch Press,2012
2. Jamie Butler and Greg Hogg, “Rootkits: Subverting the Windows Kernel”, Addison-Wesley, 2005
3. Dang, Gazet and Bachaalany, “Practical Reverse Engineering”,Wiley,2014
4. Reverend Bill Blunden, “The Rootkit Arsenal: Escape and Evasion in the Dark Corners of the System” Second Edition,Jones& Bartlett, 2012.

Duration: 3 Hours

Maximum Marks: 50

Minimum Passing Marks: 13

MCSEC-402 Mobile and Wireless Security

Instructions for Paper setters

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus).

Unit I

INTRODUCTION: Security and Privacy for Mobile and Wireless Networks: Introduction- State of the Art- Areas for Future Research- General Recommendation for Research. Pervasive Systems: Enhancing Trust Negotiation with Privacy Support: Trust Negotiation- Weakness of Trust Negotiation- Extending Trust Negotiation to Support Privacy.

Unit II

MOBILE SECURITY: Mobile system architectures, Overview of mobile cellular systems, GSM and UMTS Security & Attacks, Vulnerabilities in Cellular Services, Cellular Jamming Attacks & Mitigation, Security in Cellular VoIP Services, Mobile application security. SECURING WIRELESS NETWORKS: Overview of Wireless security, Scanning and Enumerating 802.11 Networks, Attacking 802.11 Networks, Attacking WPA protected 802.11 Networks;

Unit III

Bluetooth Scanning and Reconnaissance, Bluetooth Eavesdropping, Attacking and Exploiting Bluetooth, Zigbee Security, Zigbee Attacks; ADHOC NETWORK SECURITY: Security in Ad Hoc Wireless Networks, Network Security Requirements, Issues and Challenges in Security Provisioning, Network Security Attacks, Key Management in Adhoc Wireless Networks, Secure Routing in Adhoc Wireless Networks

Suggested Readings:

1. C. Siva Ram Murthy, B.S. Manoj, "Adhoc Wireless Networks Architectures and Protocols", Prentice Hall, x ISBN 9788131706885, 2007.
2. Nouredine Boudriga, "Security of Mobile Communications", ISBN 9780849379413, 2010
3. KMakki, PReiher, et. al. "Mobile and Wireless Network Security and Privacy", Springer, 2007
4. Levente Buttyan, JPHubaux. "Security and Cooperation in Wireless Networks", Cambridge University Press, 2008.

Duration: 3 Hours

Maximum Marks: 50

Minimum Passing Marks: 13

MCSEC-403 Intrusion Detection and Prevention Systems

Instructions for Paper setters

The question paper contains 3 sections. **Section-A** consists of 10 questions (at least 3 questions from each unit of syllabus). **Section-B** will consist of 9 questions (3 questions from each unit of syllabus). **Section-C** will consist of 6 questions (2 questions from each unit of syllabus).

Unit I

Concept and definition , Internal and external threats to data, attacks, Need and types of IDS, Information sources Host based information sources, Network based information sources. Intrusion Prevention Systems, Network IDs protocol based IDs ,Hybrid IDs, Analysis schemes, thinking about intrusion.

Unit II

A model for intrusion analysis , techniques, types of responses mapping, responses to policy Vulnerability analysis, credential analysis, non credential analysis; Introduction to Snort, Snort Installation Scenarios, Installing Snort, Running Snort on Multiple Network Interfaces, Snort Command Line Options. Step-By-Step Procedure to Compile and Install Snort Location of Snort Files, Snort Modes Snort Alert Modes.

Unit III

Working with Snort Rules, Rule Headers, Rule Options, The SnortConfiguration File etc. Plugins, Preprocessors and Output Modules, Using Snort with MySQL,Using ACID and Snort Snarf with Snort, Agent development for intrusion detection, Architecture models of IDS and IPs.

Suggested Readings:

1. Rafeeq Rehman : “ Intrusion Detection with SNORT, Apache, MySQL, PHP and ACID,” 1st Edition, Prentice Hall , 2003.
2. Christopher Kruegel,Fredrik Valeur, Giovanni Vigna: “IntrusionDetection and Correlation Challenges and Solutions”, 1st Edition, Springer, 2005.
3. Carl Endorf, Eugene Schultz and Jim Mellander “Intrusion Detection & Prevention”, 1st Edition, Tata McGraw-Hill, 2004.
4. Stephen Northcutt, Judy Novak : “Network Intrusion Detection”, 3rdEdition, New Riders Publishing, 2002.
5. T. Fahringer, R. Prodan, “A Text book on Grid Application Development and Computing Environment”. 6th Edition, Khanna Publishers, 2012.

6. Ali A. Ghorbani, Wei Lu, "Network Intrusion Detection and Prevention: Concepts and Techniques", Springer, 2010
7. Paul E. Proctor, "The Practical Intrusion Detection Handbook ",Prentice Hall , 2001.
8. Ankit Fadia and Mnu Zacharia, "Intrusion Alert", Vikas Publishing house Pvt., Ltd, 2007
9. Earl Carter, Jonathan Hogue, "Intrusion Prevention Fundamentals", Pearson Education, 2006.

Duration: 3 Hours

Maximum Marks: 50

Minimum Passing Marks: 13

Practical Training and Project Work:

1. Project Work may be done individually or in groups in case of bigger projects. However if the project is done in a group each student must be given a responsibility for a distinct module and care should be taken to monitor the individual student.
2. Project Work can be carried out in the college or outside with prior permission of college.
3. The Student must submit a synopsis of the project report to the college for approval. The Project Guide can accept the project or suggest modification for resubmission. Only on acceptance of the draft project report the student should make the final copies.
4. **The Project Report should be hand written**

Submission Copy:

The Student should submit a spiral bound copy of the project report.

Format of the Project:

(a) Paper:

The Report shall be typed on White Paper of A4 size.

(b) Final Submission:

The Report to be submitted must be original.

(c) Typing:

Font:- Times New Roman

Heading:- 16 pt., Bold

Subheading:- 14 pt, Bold

Content:- 12 pt.

Line Spacing:- 1.5 line.

Typing Side :-One Side

Font Color:- Black.

(d) Margins:

The typing must be done in the following margin:

Left : 0.75”

Right: 0.75”

Top: 1”

Bottom: 1”

Left Gutter: 0.5”

(e) Binding:

The report shall be Spiral Bound.

(f) Title Cover:

The Title cover should contain the following details:

Top: Project Title in block capitals of 16pt.

Centre: Name of project developer's and Guide name.

Bottom: Name of the university, Year of submission all in block capitals of 14pt letters on separate lines with proper spacing and centering.

(g) Blank sheets:

At the beginning and end of the report, two white blank papers should be provided, one for the Purpose of Binding and other to be left blank.

(h) Content:

I). Acknowledgement

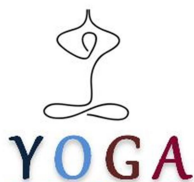
II). Institute/College/Organization certificate where the project is being developed.

- III).** Table of contents
- IV).** A brief overview of project
- V).** Profiles of problem assigned
- VI).** Study of Existing System
- VII).** System Requirement
- VIII).** Project plan
 - o Team Structure
 - o Development Schedule
 - o Programming language and Development Tools
- IX).** Requirement Specification
- X).** Design
 - o Detailed DFD and Structure Diagram
 - o Data structure, Database and File Specification
- XI).** Project Legacy
 - o Current Status of project
 - o Remaining Areas of concern
 - o Technical and Managerial Lessons Learnt
 - o Future Recommendations
- XII).** Nomenclature and Abbreviations.
- XIII).** Bibliography
- XIV).** Source Code.



Maharaja Ganga Singh University

C.E.S.D | Center for Entrepreneurship & Skill Development



Center for Entrepreneurship and Skill Development (CESD) Programme Structure and Codification of Papers

Three Years	B.Sc(Yogic Science)	Min. Passing Marks 48 (T) and 24 (P)	Max Passing Marks 135
I Year	BYS-1	16	45
	BYS-2	16	45
	BYS -3	16	45
	BYS-I -P	24	65
II Year	BYS-4	16	45
	BYS-5	16	45
	BYS-6	16	45
	BYS-II -P	24	65
III Year	BYS-7	16	45
	BYS-8	16	45
	BYS -9	16	45
	BYS-III -P	24	65
Total of Marks			600

Scheme of Examinations

1. English/Hindi shall be the medium of instructions and examination.
2. There will be yearend examination. The yearend examinations, evaluation, publication of results, award of marks statements and award of degree shall be undertaken by MGS University, Bikaner.
3. The system of evaluation shall be as follows:
 - 3.1 Each theory paper will carry 45marks. Practical paper will carry 65 marks. Any student who fails to participate in classes, viva-voce, practical work will be debarred from appearing in the yearend examination
 - 3.2 The duration of written examination for each paper shall be of three hours and Practical examination shall be for one day duration.
 - 3.3 The minimum attendance required by a candidate will be as per the University rules.
4. Regular students shall be permitted to appear/reappear/improve in course as per Maharaja Ganga Singh University rules.
5. A candidate who fails in one paper except compulsory papers at the examination shall be given chance to clear the same and in that condition he/she will be considered eligible for the next higher class. If he/she fails in more than one paper, he/she will be declared as fail. If candidate who passes in practical(s) shall be exempted from reappearing in the same and marks obtained by him/her in practical(s) shall be carried forward. Pass percentage, award of Degree, Scope of improvement as per Maharaja Ganga Singh University rules or regulation for B.Sc. examination.

Affiliation: The Programme shall be governed by the CESD, Yoga, Maharaja Ganga Singh University, Bikaner, Rajasthan

B.Sc (Yogic Science)

Introduction: The aim and the Objective of the Centre is to impart the Knowledge of Yoga to the Younger Generation and the Public, for general awareness about the usefulness of Yoga in the Field of Research and Upanishad and Vedanta to make Yoga a way of life. Yoga is one such Ancient solution to modern problems. It has received great impetus during the last half century and has now spread all over the world. This had resulted in increasing the popularity of Yoga all around, but it had also led at the same time to many innovations, some desirable, but most of them undesirable. Hence, there is a need to Present Yoga in its traditional form for the benefit of the discerning Public. Yoga is not only for the use of the Student Community but also for the public at large. So, all the below mention Courses are very much in need to introduce in the University to promote Yoga.

*The students have got good opportunity in Hospitals, Schools& Colleges, Hotel industry, Resort, Self Centre for yoga therapy, Tourism field etc.

Eligibility: 10+2 from any recognized Board.

Admission: Admission shall be on the basis of Merit.

Venue: Course will be conducted at CESD, Yoga, MGSU, Bikaner.

Total seats: 40

Duration: 3Years

B.Sc (Yogic Science)

Compulsory Subjects:	Max Marks	Min. Pass Marks
1. General Hindi 3hrs.	100	36
2. General English 3hrs.	100	36
3. Elementary Computer 2hrs.	100	36
4. Environmental Studies 2hrs.	100	36

Note:1. The marks secured in Compulsory papers shall not be counted in awarding the division to a candidate.

2. Non appearing or absent in the examination of compulsory paper will be counted a chance.

B.Sc PART-I

Scheme

Three papers

Min. Pass Marks: 48

Max Marks:

135

BYS-1 3 Hrs Duration

Min. Pass Marks: 16

45 Marks

BYS-2 3 Hrs Duration

Min. Pass Marks: 16

45 Marks

BYS-3 3 Hrs Duration

Min. Pass Marks: 16

45 Marks

BYS-I-P 5 Hrs

Min Pass Marks: 24

Max Marks: 65

BYS-I: BASIC PRINCIPLE OF YOGA AND ITS RELEVANCE

Pattern of Paper Each paper is divided into 3 sections:

Section A: Consists of 10 compulsory Questions of 1.5 (one and half) mark each. Word limit Max 50 words. Selection of question of Examiner- Maximum 2 from each unit (10X1.5=15)

Section B: Consists of 5 Questions of 3 (three) mark each with internal choice. Students are required to Attempt all five questions. Word limit Max 200 words. Selection of question of Examiner- Maximum 2 from each unit (5X3=15)

Section C: Consists of 5 Essay type Questions of 5 (five) marks each. Students are required to Attempt any 3 questions. Word limit Max 500 words. Selection of question of Examiner- Maximum one from each unit (3X5=15)

Unit-I

Yoga -need of the hour, concept of Yoga, Definition of Yoga, Basics of Yoga, The Four main stream of Yoga, Gyana, Bhakti Raja and Karma Yoga, brief glimpse into each of these streams.

Unit-II

Stress & yoga, yoga for emotion culture, the science of happiness. Yoga in education, Yoga & personality

Unit-III

Concept of Health, Health as general understood, defined by WHO, positive Health, Dimension of health

Unit-IV

Health and disease, illness according to yoga, Ayurveda, Ritucharya, Dinacharya and Tridosha.

Unit-V

Definition of Naturopathy, Illness according to Naturopathy, basic principles and tools of naturopathy.

BYS-2: HUMAN BIOLOGY and NUTRITION RELATED BIOCHEMISTRY

Pattern of Paper Each paper is divided into 3 sections:

Section A: Consists of 10 compulsory Questions of 1.5 (one and half) mark each. Word limit Max 50 words. Selection of question of Examiner- Maximum 2 from each unit (10X1.5=15)

Section B: Consists of 5 Questions of 3 (three) mark each with internal choice. Students are required to Attempt all five questions. Word limit Max 200 words. Selection of question of Examiner- Maximum 2 from each unit (5X3=15)

Section C: Consists of 5 Essay type Questions of 5 (five) marks each. Students are required to Attempt any 3 questions. Word limit Max 500 words. Selection of question of Examiner- Maximum one from each unit (3X5=15)

Unit -I

Introduction of cell, tissue, organ system Nervous system, Endocrine system., Musculo-skeletal system, Blood and lymph system, Digestive system

Unit -II

Cardio-Vascular system, Respiratory system. Immune system. Excretory system, Reproductive system, special senses.

Unit -III

Introduction to Nutrition: Food as a source of nutrients, function of food definition of nutrition, nutrient, adequate, optimum and good nutrition, Interrelationship between nutrition and health-visible symptoms of good health. Concept of balanced diet. Functional Food Groups: Basic four, Basic five, Basic seven.

Unit -IV

Carbohydrates: Composition, classification, food sources, functions, storage in body, recommended allowances and effects of deficiency and excess. Lipids: Composition classification, food sources, functions role of essential fatty acids, recommended allowances and effects of deficiency and excess. Lipids: composition classification, food sources, functions role of essential fatty acids, recommended allowances and effects of deficiency and excess. Proteins: Composition, structure and classification, denaturation of proteins, Importance of essential and non essential amino acids Elementary Knowledge of quality of portions, supplementary value of

portions, foods sources recommended allowances and effects of deficiency. **Energy:** Units of measuring energy, fuel value of food, calculation of energy. Value of diets. Factors contributing to total energy expenditure, BMR and factors affecting it, physical activity, SDA of food. Recommended allowances, effects of deficiency and excess.

Unit-V

Enzymes: Definition chemical nature, classification, co-enzymes & co-factors, deficiency and role. **Minerals :** Role in nutrition, sources, bioavailability, recommended allowances and effects of deficiency of Calcium, Iron, Iodine, Sodium, Potassium and Zinc. **Vitamins :** Definition, Classification, units of measurement functions, sources, factors affecting absorption & utilization, Recommended allowances and deficiency of (a) fat soluble vitamins A, D, E and K, (b) Water soluble Vitamins : Thiamine, Riboflavin, Niacin, folic acid, Pyridoxine and ascorbic acid. **Water:** As a nutrient, function, sources, requirement water balance, effect of deficiency.

BYS-3: INDIAN EPICS

Pattern of Paper Each paper is divided into 3 sections:

Section A: Consists of 10 compulsory Questions of 1.5 (one and half) mark each. Word limit Max 50 words. Selection of question of Examiner- Maximum 2 from each unit (10X1.5=15)

Section B: Consists of 5 Questions of 3 (three) mark each with internal choice. Students are required to Attempt all five questions. Word limit Max 200 words. Selection of question of Examiner- Maximum 2 from each unit (5X3=15)

Section C: Consists of 5 Essay type Questions of 5 (five) marks each. Students are required to Attempt any 3 questions. Word limit Max 500 words. Selection of question of Examiner- Maximum one from each unit (3X5=15)

Unit – I

Provides students with basic elementary and practical knowledge of sanskra, alphabet and phonetics. Grammar and syntax, formation and understanding of simple sentences. Common Samskrta terms used in Literature, relationship with other language.

Unit –II

Historical aspects, life sketch of Narada the author. The science of emotions culture as portrayed in NBS. Smritis(Introduction of Manu and yagyavalkyasmriti) and **the** Historical scenario of Bhagavad –Gita.

Unit –III

The key conflict of duty Vs Ethics of Arjuna. Conflict resolution, Technology - JnanaDhyana (one pointedness of mind, bliss in Yoga, control of mind perfection in Yoga.)

Unit –IV

Bhakti and Karma Yoga stream.(A Glimpse into eighteen chapters of Gita)(II & III chapters)

Unit-V

Impotent shlokas-45,4.36,4.34,2.20,6.25,6.14,6.34.6.35,6.32,6.21,6.28,8.10,6.28,

6.45,5.21,7.16,16.13,16.4,16.5,10.40,10.41,12.8,11.3,11.8,11.9,11.7,11.45,11.52,18.54,18.66,8.5,18.16,12.7,3.1,3.4,3.6,3.7,18.25,18.24,8.23,2.47,4.16,4.17,2.48,2.50,4.18,4.20,3.19,2.51,2.70,6.4,6.6,6.11,4.31,6.17,6.12,6.13,6.25,6.14,6.34,6.35,6.32,6.31,6.28,8.10,6.28,6.45,5.21*)

Practicals (BYS-I-P) B.Sc. Part –I

1. Kriyas (Shatkarma)
2. Surya Namaskar
3. SukshamaVyayama
4. Asana. (Basic set)
5. Eight step. Teaching tech. asana
6. Pranayama
7. Bandhas& Mudras
8. Omker Meditation
9. Relaxation technique[IRT,QRT,DRT]
10. Chanting
11. Yoga game
12. Emotions culture through Music, Patriotic, Service,- related songs
13. Kama yoga – Report writing
14. Presentation

Books for Reference

1. Yoga: Its basis and applications. - Dr.HR.Nagendra, SVYP, Bangalore.
2. Essence of Yoga- Swami Sivananda, The Divine life Society.
3. Light of Yoga- B.K.S Iyengar, Pub: Harper Collins India Pvt Ltd.
4. Yoga Sadhana(Hindi&English),Swami Anandananda,YogSadhna Ashram, Bapu Nagar, Jaipur(Raj.)
5. YogSikhsha(Hindi) Swami SatyanandSaraswati, Yog publication Trust, Mungare, Bihar.
6. Health&Yogasana-SwamiAnandananda, YogSadhna Ashram, Bapu Nagar, Jaipur(Raj.)
7. Pranayama-KalaAurVigyan(Hindi), Dr.H.R.Nagendra, SVYP, Bangalore.
8. A Glimpse of Human Body-Dr. Shirley Telles.
9. Yoga for CommanAlliments- Dr.H.R.Nagendra, R.Nagrathan& Robin Monoro, SVYP, Bangalore.
10. Yoga Way to Cure Disease, Swami SivanandaSaraswati.
11. YogDarshana(Hindi)-Geeta Press ,Gorakhpur.
12. Yogic Chiktsa(Hindi)Swami Kuva.
13. Yogdipika(Hindi), B.K.S Iyengar, Orient Longman PvtLtd,New Delhi.
14. BhagwatGeeta,Narada Bhakti Sutra,DshoUpnishad,(Hindi)Geeta Press, Gorakhpur.
15. PatanjaliYogsutra (Hindi),Yoga publication Trust, Mungare, Bihar.
16. Basic Book of Sanskrit Bharti.

*For more information : Refer to SVYP, Bangalore-560 018.

B.Sc PART-II

Scheme

Three papers

Min. Pass Marks: 48

Max Marks:

135

BYS-4 3 Hrs Duration

Min. Pass Marks: 16

45 Marks

BYS-5 3 Hrs Duration

Min. Pass Marks: 16

45 Marks

BYS-6 3 Hrs Duration

Min. Pass Marks: 16

45 Marks

BYS-II-P 5 Hrs

Min Pass Marks: 24

Max Marks: 65

BYS-4: Yoga therapy(Modern & Ancient)

Pattern of Paper Each paper is divided into 3 sections:

Section A: Consists of 10 compulsory Questions of 1.5 (one and half) mark each. Word limit Max 50 words. Selection of question of Examiner- Maximum 2 from each unit (10X1.5=15)

Section B: Consists of 5 Questions of 3 (three) mark each with internal choice. Students are required to Attempt all five questions. Word limit Max 200 words. Selection of question of Examiner- Maximum 2 from each unit (5X3=15)

Section C: Consists of 5 Essay type Questions of 5 (five) marks each. Students are required to Attempt any 3 questions. Word limit Max 500 words. Selection of question of Examiner- Maximum one from each unit (3X5=15)

Unit –I

Defination,Classification,types,sign and symptoms, Causes and yoga therapy: Respiratory- Bronchial asthma, Nasal allergy,Endocrine- Diabetes mellitus, Obesity. Cardio-Vascular- Hypertension, Ischaemic heart disease.Digestive-Acid peptic pain, Irritable bowel syndrome.

Unit –II

Defination,Classification,types,sign and symptoms ,Causes and yoga therapy : cardio-Vascular- Hypertension, Ischemic heart disease. Chronic pain – Arthritis, low back pain, Migraine, Tension, Headache, Cancer.

Unit –III

Defination,Classification,types,sign and symptoms ,Causes and yoga therapy:Reproductive – Menstrual disorders, Infertility, menopause, pregnancy, Eye problems-Error of Refraction, Glaucoma, Psychiatry & Neurology – Anxiety and Depressive Neurosis, Psychosis, Epilepsy, Phobia.

Unit –IV

Remedial measures prescribed there in IAYT (Integrated Approach of Yogatherapy).The role of different Asanas,Pranayarna,Mudras, Bandha and Kiryas.

Unit –V

Concept of Adhi and Vyadhi as found in Yoga Vasistha, The manner of destruction of mind, portrayed in different texts of Hatha yoga for dealing with different {Hath yoga Pradipika, Gharandshmita}

BYS-5: YOGA & SPIRITUALITY

Pattern of Paper Each paper is divided into 3 sections:

Section A: Consists of 10 compulsory Questions of 1.5 (one and half) mark each. Word limit Max 50 words. Selection of question of Examiner- Maximum 2 from each unit (10X1.5=15)

Section B: Consists of 5 Questions of 3 (three) mark each with internal choice. Students are required to Attempt all five questions. Word limit Max 200 words. Selection of question of Examiner- Maximum 2 from each unit (5X3=15)

Section C: Consists of 5 Essay type Questions of 5 (five) marks each. Students are required to Attempt any 3 questions. Word limit Max 500 words. Selection of question of Examiner- Maximum one from each unit (3X5=15)

Unit –I

Upanishads the quintessence of Vedas, the basic of Yoga, [Meaning of upanishads, Importance, Amritnadopanishad, Ishwasyopainshad, Kathoupanishad, Chandogyaupanishad, Taittiriyaupanishad,]

Unit –II

Glimpse of each Upanishads, The style of Upanishad [Shali, bhavBhasha] Harmony, Ego and beyond yogic practice. The pranavopanishad, Prasnaupanishad, Kenopanishad, Mandukyaupanishad, Mundakaupanishad, Glimpse of each Upanishads.

Unit- III

A general survey of the life sketch, teachings and techniques of founders of various spiritual masters [Viveknand, Dayanand, Mahatma Gandhi, Ravindranath Tagore, Arvind, Tilak, Vinobabhave, Ramkrishnaparamhans,]

Unit –IV

Dharma- concept, Definition, Features, Part-1 Epics [Ramayana, Mahabart, Geeta] Importance of Dharma, Dharma and Science. Part-II [Hindu Dharma], Ideals of Dharmas- [Guru Dharma, Pitra Dharma, shishya Dharma, Matra Dharmas, Mitra Dharma, Putra Dharma, Nari Dharma.]

Unit –V

Comparative religions- Part-I Partially from comparative religion Islam, Christianity. Part-II- Partially from comparative religion other religion other religions, Buddhism, Jainism, Sufism, Dharma according to ancient india- Vedic kal, Uttar Vedic kal, Upanishad, Sutrakal.

BYS-6: Patanjali YOGA TEXTS

Pattern of Paper Each paper is divided into 3 sections:

Section A: Consists of 10 compulsory Questions of 1.5 (one and half) mark each. Word limit Max 50 words. Selection of question of Examiner- Maximum 2 from each unit (10X1.5=15)

Section B: Consists of 5 Questions of 3 (three) mark each with internal choice. Students are required to Attempt all five questions. Word limit Max 200 words. Selection of question of Examiner- Maximum 2 from each unit (5X3=15)

Section C: Consists of 5 Essay type Questions of 5 (five) marks each. Students are required to Attempt any 3 questions. Word limit Max 500 words. Selection of question of Examiner- Maximum one from each unit (3X5=15)

Orientation Patanjali Yoga Sutra.Pantanjali Yoga Pradeepikatext(Part-I).Sutra's 1 to 196.(SmadhiPada&SadhanaPada)

Unit-I 1 to 39 Sutra's.

Unit-II 40 to 79 Sutra's.

Unit-III 80 to118 Sutra's.

Unit-IV 119 to 157 Sutra's.

Unit-V 158 to 195Sutra's.

Practicals (BYS-II-P) B.Sc. Part –II

1. Advance Asana
2. Advance Kriyas
3. Pranayama – II
4. Cydic Meditation
5. Yoga Game-II
6. IAYT for promotion of positive health [Basic Set]
7. [Karma Yoga II- Min.20 classes]
8. IAYT for common ailments. [Special Technique]
9. Teaching Techniques for disease [Report writing & presentation]
10. Report Writing & Presentation [Topic given by faculty]

Books for Reference

1. Essence of Yoga- Swami Sivananda, The Divine life Society.
2. Yoga Sadhana(Hindi&English),Swami Anandananda,YogSadhna Ashram, Bapu Nagar, Jaipur(Raj.)
3. Health&Yogasana-SwamiAnandananda, YogSadhna Ashram, Bapu Nagar, Jaipur(Raj.)
4. Yoga-Vivekananda Kendra Prakashna,Madras.
5. Pranayama-KalaAurVigyan(Hindi), Dr.H.R.Nagendra, SVYP, Bangalore.
6. A Glimpse of Human Body-Dr. Shirley Telles.
7. Yoga for CommanAlliments- Dr.H.R.Nagendra, R.Nagrathan& Robin Monoro, SVYP, Bangalore.
8. Yoga Way to Cure Disease, Swami SivanandaSaraswati.
9. YogaicChikatsa(Hindi)SwamiKuva.
10. Yogdipika(Hindi), B.K.S Iyengar, Orient Longman Pvt Ltd,New Delhi.

11. BhagwatGeeta,Narada Bhakti Sutra,DshoUpnishad,(Hindi)Geeta Press, Gorakhpur.
 12. PatanjaliYogsutra(Hindi),Yoga publication Trust, Mungare, Bihar.
 13. Yoga for Bronchial Asthma,Dr. R.Nagrathana&Dr.H.R.Nagendra,SVYP, Banglore-560 018.
 14. Yoga for Arthritis, Dr. R.Nagrathana&Dr.H.R.Nagendra,SVYP, Banglore-560 018.
 15. Yoga For Hyper Tension& Heart Disease,
 16. Dr. R.Nagrathana&Dr.H.R.Nagendra, SVYP, Banglore-560 018.
 17. Yoga For Pregnancy, Dr. R.Nagrathana, Dr.H.R.Nagendra&Dr,Shamantakamani-Narendran, SVYP, Banglore- 560 018
 18. Yoga for Diabetic,Dr. H.S.Shrikanta, Dr. R.Nagrathana&Dr.H.R.Nagendra, SVYP, Banglore-560 018.
 19. Science of Holistic Living,Vivekanand Kendra Prakashan,Chennai.
 20. MuktiKeChaarSopaan, Swami StyanandSaraswati, Mungare, Bihar.
- *For other References: Refer to SVYP, Banglore-560 018.

B.Sc. Part III

Scheme

Three papers	Min. Pass Marks: 48	Max Marks: 135
BYS-7 3 Hrs Duration	Min. Pass Marks: 16	45 Marks
BYS-8 3 Hrs Duration	Min. Pass Marks: 16	45 Marks
BYS-9 3 Hrs Duration	Min. Pass Marks: 16	45 Marks
BYS-III-P 5 Hrs	Min Pass Marks: 24	Max Marks: 65

BYS-7:Brain-Psychology And Naturopathy

Pattern of Paper Each paper is divided into 3 sections:

Section A: Consists of 10 compulsory Questions of 1.5 (one and half) mark each. Word limit Max 50 words. Selection of question of Examiner- Maximum 2 from each unit (10X1.5=15)

Section B: Consists of 5 Questions of 3 (three) mark each with internal choice. Students are required to Attempt all five questions. Word limit Max 200 words. Selection of question of Examiner- Maximum 2 from each unit (5X3=15)

Section C: Consists of 5 Essay type Questions of 5 (five) marks each. Students are required to Attempt any 3 questions. Word limit Max 500 words. Selection of question of Examiner- Maximum one from each unit (3X5=15)

Unit – I

The nervous system, the voluntary and involuntary NS.Sympathetic and the parasympathetic NS.

Unit –II

Cognition, IQ,memory, emotions, creativities functions, memory and learning.

Unit-III

History of Naturopathy, Principals of Naturopathy, five elements-Space, Air, sun, Water, Earth.Foreign Matters-Definition, Origin, Effects on Body, Acute and chronic diseases.

Unit-IV

Definition and clinical features, Eating habit, Raw eating-method andimportance. Aims and Basis principles of Disease Prevention, Development ofPhysical, mental and spiritual health.

Unit-V

Community sanitation and hygiene water supply, environment, health lows for Food Din-charya and Ritu-charya ,health tri-doshavata pitta, kapha, smoking, tea, coffee, drinks.

BYS-8: NATURE CURE METHODS AND PRACTICE

Pattern of Paper Each paper is divided into 3 sections:

Section A: Consists of 10 compulsory Questions of 1.5 (one and half) mark each. Word limit Max 50 words. Selection of question of Examiner- Maximum 2 from each unit (10X1.5=15)

Section B: Consists of 5 Questions of 3 (three) mark each with internal choice. Students are required to Attempt all five questions. Word limit Max 200 words. Selection of question of Examiner- Maximum 2 from each unit (5X3=15)

Section C: Consists of 5 Essay type Questions of 5 (five) marks each. Students are required to Attempt any 3 questions. Word limit Max 500 words. Selection of question of Examiner- Maximum one from each unit (3X5=15)

Unit-I

Hydrotherapy- Physical properties of water, principles of hydrotherapy, physiological effects of water application on skin reparation,digestion,action and reaction. The technique of hydrotherapy water drinking, effusions, irrigation at rose, stomach colon andrectum, chest pack, trunk pack, T-packs, leg local, full wet sheet pack, hip bath, spiral bath, spinal bath, foot bath, vapour bath, and steam bath.

Unit –II

Mud therapy – type of mud, collection and properties of mud, general and local mud applications, the physiological and pathological effects and contraindication.

Unit –III

Chromo therapy- Types of colors-primary and secondary, chromo Philosophy, chromo hygienic, limitations of chromo therapy, use of colors, limitations of chromo therapy.

Unit- IV

Fasting- definition, difference between fasting and starvation, type of fast, short fast, intermediate fast, long fast, physiological effects of fast, how start fast, how to continue and how to breakfast, methods of fasting- water, juice, saline, fruit, partial fast, mono diet fast, nutrition and dietetics- Classifications of food and drinks, deficiency diseases, artificial food and their effects, acidic and alkaline food. Digestion, absorption and assimilation.

Unit-V

Value of food in raw state, germinated form and cooked form, customs and manners of eating, combination of food, nutrition and its importance, balanced diet. Theory of massage, therapeutic use of massage, physiological effect of massage-upon skin, muscular system, circulatory system, digestive system and nervous system, massage, manipulations, hacking, stroking, percussion, petrissage, friction, tapotment, vibration and shaking

BYS-9: STRESS MANAGEMENT AND YOGA RESEARCH

Pattern of Paper Each paper is divided into 3 sections:

Section A: Consists of 10 compulsory Questions of 1.5 (one and half) mark each. Word limit Max 50 words. Selection of question of Examiner- Maximum 2 from each unit (10X1.5=15)

Section B: Consists of 5 Questions of 3 (three) mark each with internal choice. Students are required to Attempt all five questions. Word limit Max 200 words. Selection of question of Examiner- Maximum 2 from each unit (5X3=15)

Section C: Consists of 5 Essay type Questions of 5 (five) marks each. Students are required to Attempt any 3 questions. Word limit Max 500 words. Selection of question of Examiner- Maximum one from each unit (3X5=15)

Unit –I

Basic challenge of stress, Yogic concept of stress, Eustress and Distress, Physiology of stress. Stress induced problems and yogic management for stress.

Unit –II

Stimulation- Relaxation combine- the core. Recognition half the solution. Stress levels, Stimulations and pointed of awareness. Depth of Perception and expansion of awareness.

Unit –III

Working through the group, progress in tune with nature, A Holistic life style for the effective stress Management.

Unit –IV

Need for research in yoga and Yoga therapy. Research Methods- Exploratory studies, Pilot studies, open ended. Prospective studies, control studies, randomized studies, double blind studies.

Introduction:- meaning, object,significance,need,And importance of research and its scope in yoga education. Types of research,formulation and development of research problems,methods, central tendency :- objective of averaging types averages mean,mode,median, Dispersion:- measures of dispersion standard deviation and coefficient of variations .

Unit – V

Measurement parameters,error and error analysis.Report preparation and presentation,Dissertation,dataacquisition,analysis statistics,presentation format

correlation and regression ,meaning and definition of correlation. Types of correlation , methods of determining correlation. Regression analysis :- meaning and use, regression lines, regression equations, regressions coefficient and calculations , difference between correlation and regression .

Practicals(BYS-III-P) B.Sc. Part –III

Part – I Personality Assessment

1. General behavior
2. Regular and Punctuality in the class.
3. Charactor
4. Emotional stability / Maturity
5. Healthy habits and transformation (Internal

Part – II Clinical Project works

(Case study & Parameters of
Min. 8 to 10 Cases)

Part – III Presentation

Books for Reference

1. Essence of Yoga- Swami Sivananda, The Divine life Society.
2. Yoga-Vivekananda Kendra Prakashna,Madras.
3. New Perspective in Stress Management- Dr.H.R.Nagendra, SVYP, Bangalore.
4. YogDarshana(Hindi)-Geeta Press ,Gorakhpur.
5. Research Methods, Dr.H.R.Nagendra& Shirley Telles,Vivekanand Kendra Yoga Prakashan,Banglore.
6. Culture and Tradition of North East India, VivekanandKendra,Kanyakumari.
7. Sure Way to Self Realization,SwamiStyanandSaraswati,yoga publication Trust ,Mungare,Bihar
8. Meditation from the Tantras, Swami StyanandSaraswati,yoga publication Trust Mungare,Bihar.
9. New perspective in Stress Management,VKYP,Banglore.

10. GeetaTatavChintan,SwamiAtmanand,LokbhartiPrakashna,Allahabad.
 11. VivekanandSahitya, Vol: 1to10,AdwatAshram,Calcutta.
 12. Prakartickayurvijayan, Dr. Rakeshjindle.
 13. Swathyavratth. Dr. KashiNath and jagrati Sharma.
- *For other References: Refer to SVYP, Banglore-560 018.



Maharaja Ganga Singh University

C.E.S.D | Center for Entrepreneurship & Skill Development



Center for Entrepreneurship and Skill Development (CESD)

Programme Structure and Codification of Papers

Full Time, Two Years	MSc (Masters in Yoga Studies and Therapy Management)	Max Internal Marks	Max Theory and Practical Marks
Previous	MYS-1: Philosophical Background of Yoga	25	75
	MYS-2: Principal Upanishads & Yoga Vasishtha	25	75
	MYS-3: Yoga and Health	25	75
	MYS-4: Diet and Dietary Management for Common Diseases	25	75
	MYS-I-P: Combined Practical (Based on theory papers)	50	100
Final	MYS-5: Sadana and Theory of HathyogaAvamPatanjali Yoga	25	75
	MYS-6: Psychology and its Relevance to Yoga	25	75
	MYS-7: Study of Yogic practices	25	75
	MYS-8: Research Methods and Statistic in Yoga Education	25	75
	MYS-II-P: Combined Practical (Based on theory papers)	50	100
	MYS-D: Dissertation/project/training/review/clinical project/internship/case study		100
	Total of Marks		1200

Scheme of the Papers and Marks Distribution

The **Masters in Yoga Studies and Therapy Management (MSc)** is of two years (Previous and Final) duration full time annual course. The course will have 8 theory papers (4 each year) of in all 100 marks (75 external + 25 internal marks) each, a dissertation/project/training/review/clinical project/internship/case study of 50 marks in the second year and combined practical paper based on theory papers of 150 marks (100 external + 50 internal marks) in each year. The dissertation/project/training/review/clinical project/internship/case study will be evaluated by an external examiner. An educational tour may be organized for students within or outside the State under the supervision of faculty members.

Scheme of Examinations

1. English/Hindi shall be the medium of instructions and examination.
2. There will be yearend examination. The yearend examinations, evaluation, publication of results, award of marks statements and award of diploma shall be undertaken by MGS University, Bikaner.
3. The system of evaluation shall be as follows:
 - 3.1 Each theory paper will carry 100marks (75marks external + 25marks internal). The evaluation scheme shall comprise external evaluation of 75 marks and internal evaluation of 25 marks. Practical paper will carry 150 marks (100 marks external + 50 marks internal). Any student who fails to participate in classes, viva-voce, practical work will be debarred from appearing in the end semester examination
 - 3.2 The duration of written examination for each paper shall be of three hours and Practical examination shall be for one day duration.
 - 3.3 The minimum attendance required by a candidate will be as per the University rules.
4. With regards to the Dissertation/project/training/review/clinical project/internship/case study, the scheme of evaluation shall be as follows:
 - 4.1 The candidate has to submit report/thesis/dissertation/case study in a spiral/bound form in three copies which would be evaluated by an external examiner. Total marks for Project/case studies/training/dissertation/internship shall be 50.
5. Regular students shall be permitted to appear/reappear/improve in course as per Maharaja Ganga Singh University rules.
6. Pass percentage, award of degree, scope for improvement – as per Maharaja Ganga Singh University rules and regulations.

Affiliation: The Programme shall be governed by the CESD, Yoga, Maharaja Ganga Singh University, Bikaner, Rajasthan

Masters in Yoga Studies and Therapy Management (Two years)

Eligibility:

Graduate in any discipline with One year Regular Diploma/Minimum 3 months Certificate Course in Yoga with a minimum of 48% marks from Government recognized University/Recognized Institution. Or B.Sc. Naturopathy and Yogic Science with minimum 48% marks from Government recognized University/College or B.Y.N.S Five year regular course with minimum 48% marks from Government recognized University/College.

Note : Selection would be made on the basis of aggregate marks, **25% of graduation and 75%** of Yoga Diploma/Certificate Courses.

No. of Seats 40

M.Sc (Masters in Yoga Studies and Therapy Management)

Previous (First) Year

Marking Scheme for External

Theory Papers	Duration	Max. Marks
MYS-1: Philosophical Background of Yoga	3 Hrs.	75
MYS-2:Principal Upanishads & Yoga Vasishtha	3 Hrs.	75
MYS-3: Yoga and Health	3 Hrs.	75
MYS-4: Diet and Dietary Management for Common Diseases	3Hrs.	75
MYS-P-I:Combined Practical	1 Day (6Hrs)	100

**Detailed Syllabus for Masters in Yoga Studies and Therapy Management
(Full Time Two Years)**

Previous year

MYS-1: Philosophical Background of Yoga

Instructions to Paper Setters (Theory)

The paper is divided into three units. The question paper will consist of A, B and C sections. A part will consist of ten compulsory questions (at least three questions from each unit) (2 marks each). B part will consist of nine questions (three questions from each unit) and students are required to attempt five questions (5 marks each) selecting at least 1 question from each unit. C part will consist of six questions (2 questions from each unit of syllabus) and students are required to attempt three questions (10 marks each) selecting 1 question from each unit.

Unit- I

General Introduction of Sankhya Philosophy, Theory of causation, forms of satkaryavada, prakrti and its gunas, evolution and arguments for its existence, characteristic of prakrti, objection against prakrti.Purusa, and its gunas, arguments for its existence, plurality of purusas,

relationship between prakriti and purusa, theory of bondage and liberation, types of liberation, practices of yoga.

Unit- II

Geetakeanusaratmakaswaroop, shitha- pragya (ch.II) karma sidhant, Dharamkaswaroop (ch.III), Gyanki again (ch.IV), Sanyaaskaswaroop, Moksha (ch.V), Brahmagyankaupaya, AbhyaasaurBairagya, Dhyana (ch.IV), Maya kaswaroop (ch.VII), Nishkam karma yoga, Bhakti yoga, Gyana yoga (ch.XII), praviti&Nivriti (ch.XIV),

Unit- III

General introduction of Advaita Vedanta, Conception of absolute [Brahman], Conception of soul and individual soul, the nature of soul and individual soul, three states of Jiva, the relations between jiva and Brahman, three bodies of the jiva.Theory of world- Three grades of existence, [Satya], Theory of Maya, functions of Maya, characteristics of Maya, theory of causations- vivartvada, conceptions of God, the proof of existence God Theory of Bondage and liberation- concept, meaning, types of karma, knowledge and action [karma] knowledge and liberation.

Reference Books:

- ShriMadnjagwatGeetaBhashya – AcharyaSankar
- ShriMadnjagwatGeeta- Ramsukh das maharaj
- SankhayaTatvakaumudi – vachaspati Mishra
- Sankhyakarika - Ishwor Krishna Virchit
- H.P. Sinha- Outlie of Indian Philosophy
- N.K. Devraj – Indian Philosophy
- C.D. Sharny – A crtical survey of Indian Philosophy.
- J.S. Vinayaka - Indian philosophy
- H.P. Sinha - Indian Philosophy
- डॉ. डी.एन. सिंह अद्वैतऔरविषिष्टाद्वैतवेदान्त
- Bramhasutrabhasyam chapter 1,2,3,4
- Swami Atmananda- fouryogas, BharatiyavidyaBhavana. Bombay 1966
- Swami Inanananda- Philosophy of yoga, Shri Ramakrishna Ashram, Mysore
- Sing Lalan Prasad. Tntra, concept publishing Company, Delhi – 1976
- Rajkumaripandey- Bhartiya yoga pramparakevividhaAyamaRadha Publication, Delhi- 1993
- Fenerstein George. The yoga Tradition: Its History, Literature, philosophy Bhavana Books and prints, Delhi 2002.

MYS-2: Principal Upanishads & Yoga Vasishtha

Instructions to Paper Setters (Theory)

The paper is divided into three units. The question paper will consist of A, B and C sections. A part will consist of ten compulsory questions (at least three questions from each unit) (2 marks each). B part will consist of nine questions (three questions from each unit) and students are required to attempt five questions (5 marks each) selecting at least 1 question from each unit. C part will consist of six questions (2 questions from each unit of syllabus) and students are required to attempt three questions (10 marks each) selecting 1 question from each unit.

Unit:-I

Principal Upanishads Brief Introduction of Ten principal Upanishads as the basis of Yogic contest; Ishavasyopanishad: Concept of Karmanishta; Concept of Vidya and Avidya; Knowledge of Brahman; AtmaBhava; KenaUpanishat: Indwelling Power; Indriya and Antahkarana; Self and the Mind; Intuitive realization of the truth; Truth transcendental; Moral of YakshaUpakhyana Katha Upanishad: Definition of Yoga; Nature of Soul; Importance of Self Realization; Prashna Upanishad: Concept of Prana and rayi (creation); Panchapranas; The five main questions; Mundaka Upanishad: Two approaches to Brahma Vidya-the Para and Aparā; The greatness of Brahma Vidya, The worthlessness of Selfish-karma; Tapas and Gurubhakti, The origin of creation, Brahman the target of Meditation

Unit:-II

Mandukya: Four States of Consciousness and its relation to syllables in Omkara. Aitareya: Concept of Atma, Universe and Brahman. Taittiriya Upanishad Concept of PanchaKosha; Summary of ShikshaValli; AnandaValli; Bhruguvalli. Chandogya Upanishad: Om (udgitha) Meditation; Sandilyavidya, BrihadaryanakaUpanishad : Concept of Atman and Jnana Yoga. Union of Atman and Paramatman

Unit:-III

Yoga Vasishtha Highlights of Yoga Vasishtha, Concept of Adhis and Vyadhis; Psychosomatic Ailments; The four Gatekeepers (Pillars) to Freedom; How Sukha is attained the Highest State of Bliss; Practices to overcome the Impediments of Yoga; Development of Satvaguna; Eight limbs of Meditation; JnanakiSaptabhūmika

Reference Books

- Geeta press Gorakhpur
- Muktiupaya- Sami NorajanandBihar
- Yoga BhayasyVachaspati Mishra
- PatanjalyogpradeepOmanandtisth
- Yoga sutra VadhaspatiTika- Hariharnanda
- Patanjali yoga sutra- Dr.KarmbetkarLonavala.
- Yogvighyaanpradeepika-Dr.Vijey pal shashtri (Styampublicationhouse,newdelhi)

MYS-3: Yoga and Health

Instructions to Paper Setters (Theory)

The paper is divided into three units. The question paper will consist of A, B and C sections. A part will consist of ten compulsory questions (at least three questions from each unit) (2 marks each). B part will consist of nine questions (three questions from each unit) and students are required to attempt five questions (5 marks each) selecting at least 1 question from each unit. C part will consist of six questions (2 questions from each unit of syllabus) and students are required to attempt three questions (10 marks each) selecting 1 question from each unit.

Unit :-I

Definition & Importance of Health According to WHO; Dimensions of Health: Physical, Mental, Social and Spiritual; Concept of Health and Disease in Indian Systems of Medicine i.e. Ayurveda, Naturopathy, Yogic Concept of Health and Disease: Concept of Adhi and Vyadhi; Meaning and definitions, Concepts of Trigunas, Pancha-mahabhutas, Pancha-prana and their role in Health and Healing; Concept of Pancha-koshas& Shat-chakra and their role in Health and Healing;

Unit:-II

Role of Yoga in preventive health care – Yoga as a way of life, Heyamdukhamanagatam; Potential causes of Ill-health: Tapatrayas and Kleshas, Physical and Physiological manifestation of Disease: Vyadhi, Alasya, Angamejayatva and Svasaprashvasa. Mental and Emotional ill Health: Styana, Samshaya, Pramada, Avirati, Bhrantidarsana, Alabdha-bhumikatva, Anavasthitatva, Duhkha and Daurmanasya •

Unit:-III

Yogic Diet - General Introduction of Ahara; Concept of Mitahara; Classification in Yogic diet according to traditional Yoga texts;; Diet according to the body constitution (Prakriti) – Vata, Pitta and Kapha as also Gunas. • Concepts of Diet Pathya and Apathya according to GherandaSamhita,HathaPradeepika and Bhagavad Gita; Importance of Yogic Diet in YogSadhana and its role in healthy living; Diet according to the body constitution (Prakriti) – Vata, Pitta and Kapha as also Gunas. • Yogic Principles of Healthy Living: Ahara, Vihara, Achara and Vichara; Role of Yogic Positive Attitudes (Maitri, Karuna, Mudita and Upeksha) for Healthy Living, Concept of Bhavas and Bhavanas with its relevance in Health and well-being

Reference Books-

- Health and yogasana (swami anandana, yogsadnaasrambapunagerjaipur)
- Essence of yoga (swami shivananda)
- Yoga sikhsha (swami satyanandsaraswati)

- Bhagwathgeeta (geeta press Gorakhpur)
- GherandaSamhita (lonavala)
- Hatha Pradeepika(Lonavala)
- A Glimpse of Human Body – Dr Shirley Telles.
- Human Anatomy & physiology – Dr. Vrinda Singh
- Guyton A.C (1985): Function of Human Body 4th Edition
- Human Physiology – Chatterjee C.C (1992)
- Text book of Physiology – Jain A.K.

MYS-4: DIET AND DIETARY MANAGEMENT FOR COMMON DISEASES

Instructions to Paper Setters (Theory)

The paper is divided into three units. The question paper will consist of A, B and C sections. A part will consist of ten compulsory questions (at least three questions from each unit) (2 marks each). B part will consist of nine questions (three questions from each unit) and students are required to attempt five questions (5 marks each) selecting at least 1 question from each unit. C part will consist of six questions (2 questions from each unit of syllabus) and students are required to attempt three questions (10 marks each) selecting 1 question from each unit.

UNIT I

Definition of the terms: Food, Nutrition, Nutrition and dietetics, Principle of diet therapy, Therapeutic. Nutrition, Planning of Therapeutic diet, Protein, Carbohydrate and Fat: Its functions, sources and effect of deficiency, energy, metabolism, Energy metabolism and water balance.

UNIT II

Minerals-Functions, effect of deficiency and excess and food sources of calcium, phosphorous, Iron, Iodine, Fluorine and sodium. Vitamin functions, food sources, effect of deficiency and excess of fat soluble vitamin A, D, E, K and water soluble vitamin B1,B2,Niacin,Folic acid and Vitamin C.

UNIT III

Planning and Dietary Modification of therapeutic diet for fever,typhoid ,influenza,jaundice,metabolism of diabetes, diabetes diet prescription, diet for obesity and underweight, diet in disease of cardio vascular system, diet in the disease of liver, diet in disease for kidney, diet in peptic ulcer, food allergy and summary of therapeutic diet.

Reference book:

- Preksha mediation QRT (Quick Relaxation Technique)
- CHANTING
- Prayer, Bhagavat Geeta (Karama yoga, gyan yoga, raja yoga & Bhakti Yoga) Peace Chant Bhajans & patriotic song etc.

Reference Books

1. Promotion of Positive health (Dr. H.R.Nagendra)
2. Pranayama (Kala & Vigyan) (Dr.H.R.Nagendra)
3. Vyas Pushpanjali (SVYP) (Dr. H.R.Nagendra)
4. SMET (SVYP, Dr. H.R.Nagendra) For the common ailments all the SVYP, Disease Books

Masters in Yoga Studies and Therapy Management

Final (Second) Year

Marking Scheme for External

Theory Papers	Duration	Max. Marks
MYS-5: Sadana and Theory of Hathayoga	3 Hrs.	75
MYS-6: Psychology and its Relevance to Yoga	3 Hrs.	75
MYS-7: Study of Yogic practices and Dietary Management	3 Hrs.	75
MYS-8: Research Methods and Statistic in Yoga Education	3Hrs.	75
MYS-P-II: Combined Practical	1 Day (6Hrs)	100

MYS-5: Sadana and Theory of Hathayoga **Avam Patanjali Yoga** Instructions to Paper Setters (Theory)

The paper is divided into three units. The question paper will consist of A, B and C sections. A part will consist of ten compulsory questions (at least three questions from each unit) (2 marks each). B part will consist of nine questions (three questions from each unit) and students are required to attempt five questions (5 marks each) selecting at least 1 question from each unit. C part will consist of six questions (2 questions from each unit of syllabus) and students are required to attempt three questions (10 marks each) selecting 1 question from each unit.

Unit-I

Hatha Yoga Pradipika-Hath yoga ki Paribhasha, Abhyaashetuuchitsthaan, Ritukal, Sadhanamein Sadhakevam Budhaktatva, detail of Yama – Niyama, Asanonki Vidhi, vah Labh, Pranayama kipuribhasha, Prakar Vidhi, benifits & limitations. Shatkarma -Dhoti, Basti, Neti, Nauli, Trataka, kapalabhati kevidhivah Labh, Bandh – Mudra, Mahamudra, Mahabandh,

Mahavedh, Khechari, Udiyaana , Jalandhara, Moolbandha , Viparitkarni , Vajaroli, Shaktichalani, Samadhi, Nadanusandhana , KundalinikaSwaroopevam, jagraatkeUpaya.

Unit- II

Gherandshamhita-SaptaSadhan , Shaktikarma – Dhouti , Basti, Neti, Nauli, Trataka , Kapalbhatikividhi , Sabdhaniyanvahlabh, Asana , Pranayama , Mudrayein , Pratyahara , Dharana,Dhyana& Samadhi kieVivechana, Difference between HathayogaPradipka&GharandShamhita Asana, Pranayama, kriya, adimeinantar.

Unit III

~~General introduction of Advaita Vedanta, Conception of absolute [Brahman], Conception of soul and individual soul, the nature of soul and individual soul, three states of Jiva, the relations between jiva and Brahman, three bodies of the jiva. Theory of world Three grades of existence, [Satya], Theory of Maya, functions of Maya, characteristics of Maya, theory of causations vivartvada, conceptions of God, the proof of existence God. Theory of Bondage and liberation- concept, meaning, types of karma, knowledge and action [karma] knowledge and liberation.~~

Yoga its meaning & nature of yoga, concept of chitta,chitta- bhumis,chitta-vrittis,chittavritinirodhaupay, abhyasa and vairagaya as the tools,concept of bhavaprataya&upaypratayaya,chitta-vikshepas (antarayas),ektatvaabhyas,chitta- prasadanam; Types and nature of Samadhi:ritambharapragya and adhyatama- prasada , sampragyat ,asampragyat, sabeeja and nirbeeja Samadhi,

Yogmargkibadhaiye or upaya, abhyasa or vairagye,kriyayog,astangyog, Concept of ishvara, theory of klesha,concept of karmas,nature of dhukha, concept of chaturviyuhavada, Drishyaaurdrashtakaswaroop,sanyogviyogkakaran, dukhkaswaroop,gunnoki char avasthaye,haankaopaye,pragyakisaptbhumiya.

Introduction to astangayoga ,concept of yama and niyama, concept of dharna,dhyana and Samadhi. Siddhionkestrota or bhed, Concept of vasana,dharmamegh Samadhi and its result,vivekkhayati,kaivalyakaswaroop.

Reference books

- 1 Hathayogapradipika –PrakashakKaivalyadhamaLonavlapune
- 2 GharandSamhita- PrakashakKaivalyadhamaLonavlapune
- 3 GharandSamhita – SwamiNiranjananda
- 4 Hath Yoga Pradipika – Swami MuktiBodhananda
5. txnh'klgk; JhokLor& v}srosnkUr dh rkfrZrHkwfedk
6. C.D. Sharma - A critical Survey of Indian philosophy
7. J.S. Vinayaka - Indian philosophy
8. H.P. Sinha- Indian Philosophy

MYS-6: Psychology and its relevance to yoga

Instructions to Paper Setters (Theory)

The paper is divided into three units. The question paper will consist of A, B and C sections. A part will consist of ten compulsory questions (at least three questions from each unit) (2 marks each). B part will consist of nine questions (three questions from each unit) and students are required to attempt five questions (5 marks each) selecting at least 1 question from each unit. C part will consist of six questions (2 questions from each unit of syllabus) and students are required to attempt three questions (10 marks each) selecting 1 question from each unit.

Unit I

Definition of Psychology , Nature of Psychology scope of Psychology , Branches of Psychology subfields of Psychology , Utility of Psychology relation of Psychology to other fields of study , Psychology of human behaviour Psychology of spiritual growth and yogic management.

Unit II

Personality Development, its meaning and nature, Characteristic of personality, ~~Hippocrates, Kretschmer's Sheldon's, Jung's theories of personality, trait approach,~~ developmental approach and its assessments personality according to yoga text. Education Psychology , ~~Cognitive development and languages~~ ,Motivation , Emotion , IQ its meaning, IQ testing and its controversies , Stress , its concepts , causes and Stress according to Yoga and its Challenges to Modern Science.

Unit III

Psychotherapy, definition, counselling and psychotherapy related fields, guidance clinical psychology, its categories, counsels as hagiology, helping relationship solution to human problems, counselling and guidance expectation, and goals, Approach of counselling and counselling, process of counselling and stages in the counselling process , Special areas in counselling, counselling families, reluctant clients, parents, children, Delinquent marriage, premarital, women, drug addicts, Educational counselling and vocational counselling.

Reference Books

- 1.Yoga Psychotherapy and its application-by Ganesh shanker.
- 2.Psychotherapy and Counselling -By a unit of global institute,Kolkata.
- 3.Counselling techniques,interviewing and evaluation method-Do-
- 4.Yoga Philosophy of Patanjali-Acharya Hariharananda
- 5.Psychology East & West-Ajay Swami
- 6.The synthesis of Yoga –Sri Aurobindro
- 7.SMET –Dr.H.R.Nagendra,Dr.R .Nagarathna.
- 8.The Yoga Upanisad- Ayanger.T.B.Srinivas.
- 9.On the meaning of Transpersonal:Some metaphysical perspectives.
10. Concise Dictionary of Psychology-
11. Robert Frager James Fadiman – Personality and personnel growth .
12. C.G Jung - Analytical Psychology: its theory and practice.

MYS-7: Study of Yogic Practices

Instructions to Paper Setters (Theory)

The paper is divided into three units. The question paper will consist of A, B and C sections. A part will consist of ten compulsory questions (at least three questions from each unit) (2 marks each). B part will consist of nine questions (three questions from each unit) and students are required to attempt five questions (5 marks each) selecting at least 1 question from each unit. C part will consist of six questions (2 questions from each unit of syllabus) and students are required to attempt three questions (10 marks each) selecting 1 question from each unit.

Unit-I

Asana- Definition, classification, categories, benefits & limitation. Eight step technique of asana. Technique of asana according to different text.Surya Namaskara-Technique, benefits, limitation and its mudras.Physiological effect of asana and surya-namaskar on human system.

Unit-II

Pranayama- Definition, classification, types, technique of Pranayama, benefits & limitation. Pranayama method according to different schools. Breathing practices, types, techniques, benefits and limitations. Physiological effect of various Pranayama on human body.Meditation- Definition, types, techniques of meditation.Effect of meditation on various system of human body.

UNIT- III

Bandha -Definition, Types, techniques, benefits & limitations. Physiological effects of Bandha on various system of human body. Mudra- Definition, types, techniques, benefits & limitations. Physiological effects of Mudra on various system of Human body.Shat karma- Definition, classification, categories, benefits & limitations. Physiological effect of various shat karmas on human body.

Reference books

1. SHILS, M.E, Olson ,J.A, Shike ,M and Ross ,A.C.(1999): Modern Nutrition in Health and Disease 9th edition.
2. Williams,S.R.(1993):Nutrition andDiet Therapy 7th edition.TimesMirror,Mosbycollege,Publishing.
3. Mohan,L.K,andEscolt-students (2000)Krauses food Nutrition Diet Therapy.
4. Seth ,Y and Singh K.Diet Planning Through Lifestyle in Health and Disease.
5. SrilakshmiS.Dietetics 1999.
6. Davison,A,Passmore,R.BrockJ.F.andTruewell,A.S.Human Nutrition and Diets
7. PPH – Dr.H.R. Nagendra, Dr Nagratana
8. Asana kyoAurkaise – OM PrakashTiwari
9. Yogasana – Swami Kavalyanand
10. Text book of yoga – Yogeshwar

11. Asana , Pranamaya, band & Mudra
12. Pranamaya – Swami SatyanandaSarswati
13. Yoga in Daily life – Dr Shekar Sharma
14. Light on Yoga- B.K.S Iyengar

MYS-8: Research Methods and Statistic in Yoga Education

Instructions to Paper Setters (Theory)

The paper is divided into three units. The question paper will consist of A, B and C sections. A part will consist of ten compulsory questions (at least three questions from each unit) (2 marks each). B part will consist of nine questions (three questions from each unit) and students are required to attempt five questions (5 marks each) selecting at least 1 question from each unit. C part will consist of six questions (2 questions from each unit of syllabus) and students are required to attempt three questions (10 marks each) selecting 1 question from each unit.

Unit I

Introduction: - Meaning object, Significance, need and important of research and its scope in yoga Education. Types of research, formulation and Development of research problem, methods , central tendency :- objective of Averaging types averages mean and median .

Dispersion:-Measures of dispersion Standard Deviation and Coefficient of Variations. ~~Correlation and Regression, Meaning and Definition of Correlation.Types of correlation, methods of Determining Correction.~~

Unit-II

~~Correlation and Regression, Meaning and Definition of Correlation.Types of correlation, methods of Determining Correction.~~Regression Analysis :- meaning and use, regression lines . Regression equations, regressions Coefficient and Calculations, Difference between correlation and Regression.

Unit-III

Statistical Inference I- Sampling, Advantage of Sampling, types of sampling, sampling distribution, sampling Error, Estimation Hypothesis Testing: - Types I and Type II Error, level of significance. Statistical Inference II- test of Significance small and large sample test and (z, t, f and χ^2 test) Analysis of variance.

Reference Books

1. Research Methods- H.K. kapil.
2. Research Methodology. C.R. Kotar.
3. Statistical method- S.P. Gupta.
4. Statistical psychology and education – garret.
5. VagyanikMalish.-shrisatpal.
6. Research methods – Dr. H.R. NagendrasharlleyTelles V KY P. Bangalore.

MYS:D

Dissertation/project/training/review/ clinical project/internship/case study.Clinical Project Works (minimum 4 cases)/ any experimental studies/topic allotted by the faculty & Presentation

MYS-II-P Practical Final year

SukshamaVyayama, Advance Asana & Management of Yogic Practice for disease & Advance Tech for chronic ailments- PranicEnergisation Technique (PET)

SUKSHAMA VYAYAMA

1. NETRA - SAKTI - VIKASA (IMPROVING THE EYE SIGHT)
2. KOPALA - SAKTI - VARDHAKA (REJUVENATING THE CHEEKS)
3. KARNA - SAKTI - VARDHAKA (IMPROVING THE POWER OF HEARING)
4. GRIVA - SAKTI - VARDHAKA (STRENGTHENING THE NECK) 1
5. GRIVA - SAKTI - VARDHAKA (STRENGTHENING THE NECK) 2
6. GRIVA - SAKTI - VARDHAKA (STRENGTHENING THE NECK) 3
7. SKANDHA - TATHA - BAHU - MULA - SAKTI - VIKASARA(DEVELOPING THE STRENGTH OF THE SHOULDER BLADE AND JOINTS)
8. BHUJA BANDHA-SAKTI-VAKASAKA (STRENGTHENING THE UPPER ARMS)
9. KAPHONI-SAKTI-VIKASAKA (STRENGTHENING THE ELBOW)
10. BHUJA-BALI-SAKTI-VIKRASARA(STRENGTHENING THE FORE ARMS)
11. MANI-BANDHA-SAKTI -VIKASAKA (DEVELOPING THE WRISTS)
12. KARA-PRASTHA-SAKTI-VIKASAKA (DEVELOPING THE BACK OF THE HAND)
13. KARA-TALA-SAKTI-VIKASAKA (DEVELOPING THE BACK OF THE PALMS)
14. ANGULI-SAKTI-VIKASAKA (STRENGTHENING THE FINGER)
15. KATI - SAKTI - VIKASAKA (STRENGTHENING OF THE BACK) 1
16. KATI - SAKTI - VIKASAKA (STRENGTHENING OF THE BACK) 2
17. JANGHA - SAKTI - VIKASAKA (DEVELOPING THE THIGHS) -I
18. JANGHA - SAKTI - VIKASAKA (DEVELOPING THE THIGHS)-II
19. JANGHA - SAKTI - VIKASAKA (DEVELOPING THE KNEES)-III
20. PINDALI - SAKTI - VIKASAKA (DEVELOPING THE CALVES)
21. GULPHA-PADA-PRASTHA-PADA-TALA-SAKTI-VIKASAKA(DEVELOPING THE STRENGTH OF ANKLES & FEET)
22. PADA-MULA-SAKTI-VIKASAKA (DEVELOPING THE STRENGTHS OF THE SOLE)
23. PAD-ANGULI-SAKTI-VAKASAKA (DEVELOPING THE THOES)

ADVANCE ASANA

STANDING POSTURE

- | | |
|------------------------|-------------------|
| 1. ARDHAKATI CAKRASANA | 7.ARDHACHAKRASANA |
| 2. ARDHA CAKRASANA | 8.GARURASANA |
| 3. PADA HASTASANA | 9.GRIVASANA |
| 4. TRIKONASANA | 10.VRIKSANA |

5. PARIVARTTA TRIKONASANA
6. PARSVA KONASANA

- 11.NATARAJASAN
- 12.BATYANASANA

SITTING POSTURE

- 1.VAJRASANA
- 2.SASANKASANA SUPTA
- 3.PASCIMATANASANA
- 4.SUPTA VAJRASANA
- 5.USTRASANA
- 6.VAKRASANA/ARDHA MATYASYENDRASANA
- 7.YOGA MUDRA
- 8.PADMASANA/BADDHA PADMASANA
- 9.PADA PRASAR PASCHIMATTANASANA
- 10.ARDHA PADMA
- PASCHIMATTANASANA
- 11.JANU SIRASANA
- 12.EKAPADA PADMATTANASANA
- 13.UTHITA JANU SIRASANA.
- 14.EKAPADA PADMATTANASANA
- 15.MAYURASANA
- 16.GOMUKHASANA

PRONE POSTURE

- 1.BHUJANGASANA
- 2.SALABHASANA
- 3.DHANURASANA
- 4.MAYURASANA
- 5.HAMSASANA
- 6.PADMA MAYURASANA
- 7.PARIPURNA NAVASANA
- 8.VRISCHIKASANA

SUPINE POSTURE

- 1.HALASASANA
- 2.SARVANGASANA
- 3.MATSYASANA
- 4.SETUBANDHASANA
- 5.BADDHA SARVANGASANA
- 6.EKAPA SETUBHANDHA SARVANGASANA
- 7.CAKRASANA
- 8.VIPAREETA KARANI
- 9.ARDHA PADMASANA
- 10.KARNA PIDASANA

TOPSY TURVY POSTURE

- 1.ARDHA SIRASASANA
- 2.SIRSASANA
- 3.SALAMBHA SIRSASANA
- 4.NIRLAMBHA SIRSASANA.

RELAXATION MEDITATIVE

- 1.TADASANA.
- 2.PADMASANA
- 3.DANDASANA.
- 4.SUKHASANA
- 5.MAKRASANA.
- 6.SIDDHASANA



Maharaja Ganga Singh University

C.E.S.D | Center for Entrepreneurship & Skill Development



Center for Entrepreneurship and Skill Development (CESD)

Programme Structure and Codification of Papers

One Year	Post Graduate Diploma in Yoga and Naturopathy	Max Internal Marks	Max Theory and Practical Marks
	PGDYN-1 Foundation of Yoga	25	75
	PGDYN-2 Patanjali Yoga	25	75
	PGDYN-3 Human Anatomy & Physiology	25	75
	PGDYN-4 Yogic management for Diseases	25	75
	PGDYN-P Combined Practical (Based on theory papers)	50	100
	PGDYN-D Dissertation/project/training/review/ clinical project/internship/case study		50
	Total of Marks		600

Scheme of the Papers and Marks Distribution

The PGDYN is of one year duration full time annual course. The course will have four theory papers of 100 marks (75 external + 25 internal marks) each, a dissertation/project/training/review/clinical project/internship/case study of 50 marks and one combined practical paper based on theory papers of 150 marks (100external + 50 internal marks). The dissertation/project/training/review/clinical project/internship/case study will be evaluated at the end of course by an external examiner. An educational tour may be organized for PG diploma students within or outside the State under the supervision of faculty members.

Scheme of Examination

1. English/Hindi shall be the medium of instructions and examination.
2. There will be yearend examination. The yearend examinations, evaluation, publication of results, award of marks statements and award of diploma shall be undertaken by MGS University, Bikaner.
3. The system of evaluation shall be as follows:
 - 3.1 Each theory paper will carry 100marks (75marks external + 25marks internal). The evaluation scheme shall comprise external evaluation of 75 marks and internal evaluation of 25 marks. Practical paper will carry 150 marks (100 marks external + 50 marks internal). Any student who fails to participate in classes, viva-voce, practical work will be debarred from appearing in the end semester examination
 - 3.2 The duration of written examination for each paper shall be of three hours and Practical examination shall be for one day duration.
 - 3.3 The minimum attendance required by a candidate will be as per the University rules.
4. With regards to the Dissertation/project/training/review/clinical project/internship/case study, the scheme of evaluation shall be as follows:
 - 4.1 The candidate has to submit report/thesis/dissertation/case study in a spiral/bound form in three copies which would be evaluated by an external examiner. Total marks for Project/case studies/training/dissertation/internship shall be 50.
5. The candidate has to secure at least 36% marks to pass the examination and 25% marks in each individual paper. Even if he/she fails in one paper/course/practical, he/she will be declared fail. He/she however shall be allowed one more chance to appear in the examinations as ex-student. In such a case, the marks of practical's shall be carried forward for the said purpose and as per Maharaja Ganga Singh University rules and regulations.

Affiliation: The Programme shall be governed by the CESD, Yoga, Maharaja Ganga Singh University, Bikaner, Rajasthan

Post Graduate Diploma in Yoga and Naturopathy

Marking Scheme for External

Theory Papers	Duration	Max. Marks
PGDYN-1: Foundation of Yoga	3 Hrs.	75
PGDYN-2: Patanjali Yoga	3 Hrs.	75
PGDYN-3: Human Anatomy & Physiology	3 Hrs.	75
PGDYN-4: Yogic management for Diseases	3Hrs.	75
Combined Practical	1 Day (6Hrs)	100

Detailed Syllabus for Post Graduate Diploma in Yoga and Naturopathy (1 year)

PGDYN-1: Foundation of Yoga

Instructions to Paper Setters (Theory)

The paper is divided into three units. The question paper will consist of A, B and C sections. A part will consist of ten compulsory questions (at least three questions from each unit) (2 marks each). B part will consist of nine questions (three questions from each unit) and students are required to attempt five questions (5 marks each) selecting at least 1 question from each unit. C part will consist of six questions (2 questions from each unit of syllabus) and students are required to attempt three questions (10 marks each) selecting 1 question from each unit.

Unit- I

Historical and Mythological aspects leading to the origin of yoga, history and development of yoga, Definition of yoga in different yoga text and school of thought. Yoga in education, Stress & Yoga, Yoga and Personality, Yoga for emotion culture, science of happiness, the basis of Yoga.

Unit- II

Yoga in Veda- Jnana, Bhakti, Karma, Dhyana yoga, Yama- Niyama and Pranasadhna. Yoga in Upanishad- Jnana, Bhakti, Karma, Astanga, Sharanga, Nada, Mantra, Dhyana. Nature and types of yoga in Adhyatma- Ramayan, Puranas, & Yoga Vasistha.

Unit- III

Yoga in shat darshana- General introduction, aim and objective of shat darshan with special reference to yoga. Yoga for unity in Diversity, Yoga – the individual and the society. Yoga in Tantra- Introduction, Kundalini & shat- chakra-sadhana

Reference books

1. Swami Atmananda- fouryogas, BharatiyavidyaBhavana. Bombay 1966
2. Swami Inanananda- Philosophy of yoga, Shri Ramakrishna Ashram, Mysore
3. Sing Lalan Prasad. Tntra, concept publishing Company, Delhi – 1976
4. Rajkumaripandey- Bhartiya yoga pramparakevidhaAyamaRadha Publication, Delhi- 1993
5. Fenerstein George. The yoga Tradition: Its History, Literature, philosophy Bhavana Books and prints, Delhi 2002.

PGDYN-2: Patanjali Yoga

Instructions to Paper Setters (Theory)

The paper is divided into three units. The question paper will consist of A, B and C sections. A part will consist of ten compulsory questions (at least three questions from each unit) (2 marks each). B part will consist of nine questions (three questions from each unit) and students are required to attempt five questions (5 marks each) selecting at least 1 question from each unit. C part will consist of six questions (2 questions from each unit of syllabus) and students are required to attempt three questions (10 marks each) selecting 1 question from each unit.

Unit-I

Meaning of the word yoga, chapters, objective, and definition. ChittkibhumiKa, chittkiavasthayen, chittkivrathiyen and its types, Chittvratinirodhkeupaaye.

Unit- II

Ishwarkiavdhaarna ,chittvikshapekekaaran,karmasidhant , Kriyayog,Panchakalesh-swaroop&Types,Sanyam,Vibootiyokaswaroop.

Unit III

Yam, niyam,aasana,pranayamakaswaroopavampfalDharna.dhyaan,Samadhi,Samadhikebhed,bhandhan aurmoksh,kevalyekaswaroop,kevalyekebhed

Reference books

- Muktikeupaya- Sami NorajanandBhihar
Yoga BhayasyVachaspati Mishra
PatanjalyogpradeepOmanandtisth
Yoga sutra VadhaspatiTika- Hariharnanda
Patanjali yoga sutra- Dr.KarmbetkarLonavala.
Yogvighyaanpradeepika-Dr.Vijey pal shashtri(Styampublicitionhouse,newdelhi)

PGDYN-3: Human Anatomy & Physiology

Instructions to Paper Setters (Theory)

The paper is divided into three units. The question paper will consist of A, B and C sections. A part will consist of ten compulsory questions (at least three questions from each unit) (2 marks each). B part will consist of nine questions (three questions from each unit) and students are required to attempt five questions (5 marks each) selecting at least 1 question from each unit. C part will consist of six questions (2 questions from each unit of syllabus) and students are required to attempt three questions (10 marks each) selecting 1 question from each unit.

Unit-I

Muscular system - Types of muscles, Theory of contraction, categories of muscles, and properties of muscles. Skeletal system - Introduction of skeletal system, function of skeletal system. Types of joints, composition of bone, Types of bones, vertebral column of human body. Respiratory system- Definition of respiration, structure and function, mechanism of respiration, exchange of gases, oxygen transportation, and co-transportation of respiration. Nervous System – Definitions , Role of Nervous System , Structure of neuron , Type of neuron , Morphological and function , Conduction of nervous system (Brain & Spinal cord) Peripheral nervous system , Autonomic nervous system. Immune System - Definition, types of Immunity

Unit-II

Digestive system - definition of digestion, structure and function, mechanism of absorption of various product of digestive system control of digestion in various part of alimentary, hormonal control of digestive system. Circulatory system- structure and function of heart and blood vessels, cardiac cycle, regulation of cardiac output, blood pressure and factor affecting it, Hypertension. Blood & lymph-composition of blood, blood cells, function of blood, lymph, composition of lymph & functions

Unit-III

Excretory System – Definition , Anatomy & Physiology of Kidneys , Structure and function of nephron , Mechanism of urine formation , Regulation of urine formation Sense organ – Structure & Functions (Eye , Skin, Ear, Nose and Tongue) Physiology of different sense organ Endocrine system – Endocrine gland – structure , function, secretion , regulation of hormonal secretion, mechanism of action of hormone , Emphasis on physiology of diabetes and stress hormones, physiological functions and abnormalities in secretion of pituitary , thyroid , parathyroid , hormones, adrenal and reproductive hormones. Disorders of endocrine glands .Reproductive system – Definition, Types of Reproductive, male reproductive system, Female reproductive system, menstrual cycle, Pregnancy changes during Pregnancy.

Reference books

1. A Glimpse of Human Body – Dr Shirley Telles.
2. Human Anatomy & physiology – Dr. Vrinda Singh

3. Guyton A.C (1985): Function of Human Body 4th Edition
4. Human Physiology – Chatterjee C.C (1992)
5. Text book of Physiology – Jain A.K.

PGDYN-4:Yogic management for Diseases

Instructions to Paper Setters (Theory)

The paper is divided into three units. The question paper will consist of A, B and C sections. A part will consist of ten compulsory questions (at least three questions from each unit) (2 marks each). B part will consist of nine questions (three questions from each unit) and students are required to attempt five questions (5 marks each) selecting at least 1 question from each unit. C part will consist of six questions (2 questions from each unit of syllabus) and students are required to attempt three questions (10 marks each) selecting 1 question from each unit.

A Comprehensive study of the definition, classification, types, sign, symptom and yoga therapy for diseases of the following system:

Unit- I

Respiratory system- Nasal Allergy and Asthma ,Cardiovascular system- Hypertension and coronary artery diseases, Psychiatry Anxiety, depressive neurosis, Insomnia, phobia, OCD (Obsessive

Unit-II

Digestive system- hyperacidity, Irritable bowel syndrome constipation, Gas (Flatulence).Musculo skeletal system - Arthritis, Back pain, ankylosing spondylitis

Unit III

Reproductive system- Infertility, Menstrual disorder, Role of stress in problems of Pregnancy, Menopause. Nervous system-Epilepsy, migraine, Endocrine System- Diabetes, obesity, Thyroid (Hypo & Hyper) .Special senses - eyes (Error of Refraction).

Reference Books

1. Yoga for common ailments series published by svyp
2. Yoga therapy- by swami kuvalayanand, Lonavala
3. Yoga for different ailments Robinmonro, Nagarathna&Nagendra.
4. Light on pranayama B.K.S. Iyenger
5. Bandh& madras swami geetananda.
6. PPH- SVYP Bangalore

Practicals

1. Surya Namaskar
2. Kriyas (Shatkarma)
3. SukshmaVyayama

4. Asana. (Basic set)
 5. Pranayama
 1. Bandhas& Mudras
 2. Omker Meditation
 3. IRT+qrt + DRT
 4. Chanting
 5. Yoga game
 6. Emotions culture through Music
 7. Patriotic, Service- related songs
 8. Karma Yoga Modules Presentation
 - Report Writing
 - Report Presentation
 - IAYT for common ailments.
- Personality Assessment Clinical project works/ Dissertation/project/training/review/ clinical project/internship/Case study & Parameters (Min. 8 to 10 Cases) (Only for PG Diploma students)
 - Presentation

Reference Books

1. Promotion of Positive health (Dr. H.R.Nagendra)
2. Pranayama (Kala & Vigyan) (Dr.H.R.Nagendra)
3. VyasPushpanjali (SVYP) (Dr. H.R.Nagendra)
4. SMET (SVYP, Dr. H.R.Nagendra) For the common ailments all the SVYP, Disease Books

**M.Sc. MICROBIOLOGY (Semester System)
SCHEME OF EXAMINATION**

ELIGIBILITY

Looking at the interdisciplinary nature of Microbiology, the eligibility of candidates for admission to M.Sc. Microbiology shall be as given below:

B.Sc. with one of the subject of life sciences or bachelor degree in Microbiology/Biotechnology/Biochemistry/Genetics/Medicine/Agriculture/Horticulture/Forestry/Wild life/Pharmacy/Life Sciences with 50% marks.

PASS CRITERIA

Each theory paper shall be of 50 marks (40 Paper +10 Internal). For passing in each theory examination, a candidate is required to obtain 25% marks in individual paper and 36% marks in aggregate of all theory papers and 36% marks separately in the practical examination.

CLASSIFICATION OF SUCCESSFUL STUDENTS

Division	Total Marks
First Division	60% and above
Second Division	Above 48 % and below 60 %
Pass	Above 36 % and below 48 %
Fail	Below 36 %
BACKLOG	As per University Norms

**Examination Scheme for M.Sc. Microbiology
(CHOICE BASED CREDIT SYSTEM (CBCS))
Session 2020-21 (Sem-I & II) & 2021-22 (Sem-III & IV)**

Paper Code	Paper Name		Lecture	Tutorial	Practical	Total Credits	Maximum Marks		Minimum Passing Marks
							Internal Marks	External Marks	
Semester-I									
Theory Papers									
MB-101	General Microbiology and Bacteriology	Core Compulsory	4	1	0	5	10	40	13 (25 %)
MB-102	Microbial Physiology and Biochemistry	Core Compulsory	4	1	0	5	10	40	13 (25 %)
MB-103	Molecular Biology	Core Compulsory	4	1	0	5	10	40	13 (25 %)
MB-104	Microbial Genetics and Genetic Engineering	Core Compulsory	4	1	0	5	10	40	13 (25 %)
							40	160	

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							Total Theory Marks	200	72 (36% aggregate)
Practical									
Practical (Based on theory papers)		0	0	5	5	25	75	36 (36% aggregate)	
Total Credits					25	Grand Total	300		
Semester-II									
Theory Papers									
MB-201	Virology	Core Compulsory	4	1	0	5	10	40	13 (25 %)
MB-202	Bioinstrumentation	Core Compulsory	4	1	0	5	10	40	13 (25 %)
MB-203	Eukaryotic Microbiology	Core Compulsory	4	1	0	5	10	40	13 (25 %)
MB-204	Industrial and food Microbiology	Core Compulsory	4	1	0	5	10	40	13 (25 %)
							40	160	
							Total Theory Marks	200	72 (36% aggregate)
Practical									
Practical (Based on theory papers)		0	0	5	5	25	75	36 (36% aggregate)	
Total Credits					25	Grand Total	300		
Semester-III									
Theory Papers									
MBCC-301	Microbial Ecology and Environmental Biotechnology	Core Compulsory	4	1	0	5	10	40	13 (25 %)
MBCC-302	Soil and Agricultural Microbiology	Core Compulsory	4	1	0	5	10	40	13 (25 %)
MBCE-303A	Medical Microbiology	Core Elective	4	1	0	5	10	40	13 (25 %)
MBCE-303B	Basics of Medical Laboratory Techniques								
MBEO-304A	Immunology	Elective Open	4	1	0	5	10	40	13 (25 %)
MBEO-304B	Human Physiology								
							40	160	
							Total	200	72

							Theory Marks		(36% aggregate)
Practical									
Practical (Based on theory papers)		0	0	5	5	25	75	36 (36% aggregate)	
Total Credits					25	Grand Total	300		
Semester-IV									
MBCC-401	Bioinformatics and Computer Applications	Core Compulsory	4	1	0	5	10	40	13 (25 %)
MBCE-D	Research Project/ Review /Case Study	Core Elective	0	0	10	10	20	80	36 (25 %)
MBEO-402A	Biostatistics	Elective Open	4	1	0	5	10	40	13 (25 %)
MBEO-402B	OR Research Methodology								
*10 min presentation/viva voce of each student								40	160
							Total Theory Marks	200	72 (36% aggregate)
Practical									
Practical (Based on theory papers)		0	0	5	5	25	75	36 (36% aggregate)	
Total Credits					25	Grand Total	300		

MASTER OF SCIENCE IN MICROBIOLOGY

Semester 1

Marking Scheme for External

Theory Papers	Duration	Max. Marks
Paper MB-101	3 Hrs.	40
Paper MB-102	3 Hrs.	40
Paper MB-103	3 Hrs.	40
Paper MB-104	3Hrs.	40
Combined Practical	1 Day (6Hrs)	75
Academic/Industrial Tour	1-5 Days	00

MB-101: General Microbiology and Bacteriology

Scheme of Examination

The question paper will consist of three Sections: A, B and C. Section A will consist of 10 questions (at least 3 questions from each unit of syllabus). Section B will consist of 9 questions (3 questions from each unit of syllabus). Section C will consist of 6 questions (2 questions from each unit of the syllabus).

Maximum Marks: 50 (40 Paper + 10 Internal)

Duration: 3 Hrs

Minimum Passing Marks: 13

UNIT-I

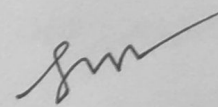
History and Scope of Microbiology, Culturable and unculturable bacteria. Microbial Taxonomy: Taxonomic ranks, Phenetic and Phylogenetic classification approaches, Numerical taxonomy and Polyphasic classification approaches, Major groups of bacteria according to Bergey's manual of systematic bacteriology. Ultra structure, chemistry and function of prokaryotic cells.

UNIT-II

Autotrophs, heterotrophs, lithotrophs, chemotrophs and phototrophs. Microbial Growth: Growth factors, Growth curve, kinetics, synchronous growth of bacteria. Control of Micro-organisms: Sterilization; Dry, Wet, Chemical, Filtration, Radiation. Evaluation of effectiveness of physical and chemical antimicrobial agents. Media preparations, types of media. Differential, Selective and enrichment media. Aerobic and Anaerobic cultivation.

UNIT-III

General Characters of Important Bacteria- *Escherichia*, *Salmonella*, *Vibrio*, *Proteus*, *Bacillus*, *Lactobacillus*, *Streptococcus*, *Staphylococcus*, *Corynebacterium*, *Treponema*, *Mycobacterium*, *Pseudomonas*, *Klebsiella*, *Thiobacillus*, *Rhizobium*, *Azotobacter*, *Acetobacter*, *Streptomyces*, *Clostridium*. Characters of Special group of organism as- Archaeobacteria, Photosynthetic bacteria, Nitrogen fixing bacteria, Spirochaetes, Mycoplasma, Rickettsia, Bdellovibrio.



SUGGESTED READINGS:

1. General Microbiology (5th edition) by Stanier Ingraham Wheelis, Macmillan; 2007.
2. Prescott/Harley/Klein's Microbiology by Willey J., Sherwood L. and Woolverton C. McGraw Hill; 2007.
3. Microbiology A laboratory manual by Cappuccino, G. James, Sherman Natalie, Pearson Education; 2011.
4. Microbiology by Pelczar J. Michael, Chan E.C.S, Krieg R. Noel, Tata McGraw-Hill Publishing Company Limited, 1998.
5. The Prokaryotes. A handbook on the biology of bacteria: ecophysiology, isolation, identification, applications. Volumes I-IV by Balows, A., Truper, H. G., Dworkin, M., Harder, W., Schleifer, K. H. Springer-Verlag, New York; 1992.
6. Bacterial Systematics, by Logan, A., Niall A. Logan, Wiley-Blackwell; 1994.
7. Bergey's Manual of Determinative Bacteriology (8th edition) by Breed and Buchanan; 1974.
8. Bergey's Manual of Determinative Bacteriology (9th edition) by Breed and Buchanan; 1982.
9. Bergey's Manual of Systematic Bacteriology (2nd edition) by Breed and Buchanan. (Volumes. 1 – 5); 2001- 2003.
10. Principles of Microbiology by R.M. Atlas, Mosby publishers, St. Louis; 1995.
11. Brock Biology of Microorganisms (12th edition) by Madigan and John M. Martinko, Paul V. Dunlap, David P. Clark Benjamin Cummings; 2008.
12. Microbiology: An Introduction by Gerard J., Tortora, Berdell R. Funke, Christine L Case Benjamin-Cummings Publishing Company; 2008.

MB-102: Microbial Physiology and Biochemistry

Scheme of examination

The question paper will consist of three Sections: A, B and C. Section A will consist of 10 questions (at least 3 questions from each unit of syllabus). Section B will consist of 9 questions (3 questions from each unit of syllabus). Section C will consist of 6 questions (2 questions from each unit of the syllabus).

Maximum Marks: 50 (40 Paper + 10 Internal)

Duration: 3 Hrs

Minimum Passing Marks: 13

UNIT-I

Microbial growth: definition of growth, growth curve; The mathematics of growth-generation time, specific growth rate, batch and continuous culture. Temperature -temperature ranges for microbial growth. pH- pH ranges for microbial growth. Microbial transport : diffusion – Passive and facilitated, Primary active and secondary active transport, Group translocation (phosphotransferase system), symport, antiport and uniport (Ritika Agarwal).

Structure of atom, molecules and chemical bonds. Biochemistry of enzymes: classification, nomenclature, specificity, isolation and purification. Enzyme kinetics and inhibition. Co-enzymes. Allosteric and other regulations of enzyme activity, Mechanism of action of enzymes.

UNIT-II

Cell metabolism: anabolic principles and synthesis of fatty acids, lipids (Poorvi Vyas), amino acids and proteins in microbes (Ravi Prakash). Studies of biosynthesis of hormones. Synthesis of vitamins and their role as coenzymes (Rekha Vaishnav). Basic aspects of bioenergetics, entropy and enthalpy. Electron carriers, artificial electron donors, inhibitors, uncouplers, energy bonds and phosphorylation (Prabha Sankhla). Brief account of photosynthetic and accessory pigments (Priya Mundhra). Autotrophic generation of ATP and Fixation of CO₂ in Microorganism, Calvin cycle (Priyanshi Panwar). Oxygenic and anoxygenic photosynthesis (Pryyanka).

UNIT-III

Microbial Oxidation of Inorganic Molecules: sulphur, iron, hydrogen and nitrogen (Monika Verma). Bioluminescence.

Catabolism of carbohydrates, proteins and lipids; Respiratory pathways: Embden Mayer Hoff Parnas pathway, EntnerDoudroff pathway, Glyoxalate pathway, Krebs cycle, oxidative and substrate level phosphorylation, Reverse TCA cycle, Gluconeogenesis, Pasture effect; Fermentation of carbohydrates: homo and heterolactic fermentations.

SUGGESTED READINGS:

1. Biochemistry by Geoffrey L. Zubay. Fourth Edition, Addison-Wesley educational publishers Inc.,2008.
2. Lehninger: Principles of Biochemistry by David L. Nelson and Michael M. Cox.Fifth Edition, W.H.Freeman and Company; 2008.
3. Biochemistry, (2nd edition) byVoet Donald &Voet Judith G.,John Wiley & sons New York; 1995.
4. Physiology and Biochemistry of Prokaryotes(2nd edition) byWhiteDavid,Oxford University Press, NY;2000.
3. Microbial lipids edited by C. Ratledge and SG Wilkinson, second edition, Academic Press; 1988.
4. Microbial Physiology by Albert G. Moat and John W. Foster. (3rd edition), John Wiley and Sons;2002
5. The Physiology and Biochemistry of Prokaryotes by David White. (2nd edition), Oxford UniversityPress; 2000.
6. Biochemistry by Berg Jeremy, Tymoczko John, StryerLubert 6th Edition, W. H. Freeman, New York.(2001)

MB-103: Molecular Biology
Scheme of examination



The question paper will consist of three Sections: A, B and C. Section A will consist of 10 questions (at least 3 questions from each unit of syllabus). Section B will consist of 9 questions (3 questions from each unit of syllabus). Section C will consist of 6 questions (2 questions from each unit of the syllabus).

Maximum Marks: 50 (40 Paper + 10 Internal)

Duration: 3 Hrs

Minimum Passing Marks: 13

UNIT-I

Genetic Material : Chemical composition and organization, 3-D structure of DNA, linking number, topological properties, super coiling of DNA, packaging of DNA in pro & eukaryotes. DNA denaturation and renaturation, Coding and non-coding DNA, repetitive DNA sequences, DNA replication and repair mechanism: comparison between prokaryotes and eukaryotes, inhibitors of DNA replication, DNA damage, DNA recombination. Transposons and mechanism of transposition.

UNIT-II

Transcription in pro and eukaryotes, Reverse transcription, inhibitors of transcription, post transcriptional processing. Translation in pro- and eukaryotes, Genetic code. Inhibitors of translation, post translational modifications.

UNIT-III

Mechanism of gene regulation, catabolite repression, Lac and tryptophan operon, ara operon, cis-acting elements, transacting factors, positive and negative regulation, inducers and co-repressors. Negative regulation; regulation by attenuation. Antitermination - Proteins pN, pQ and nut sites, DNA binding sites, Global regulatory responses: heat shock response, stringent response and regulation by small molecules such as ppGpp(p) and cAMP.

SUGGESTED READINGS:

1. Gene IX by Benjamin Lewin, Jones and Bartlett Publishers, Sudbury, Massachusetts, 2007.
2. Molecular Biology by R.F. Weaver, 4th edition, McGraw Hill. New York. USA, 2007.
3. Molecular Biology of the Gene by J.D. Watson, T.A. Baker, S.P. Bell, A. Gann, M. Levin, R. Losick, 6th edition, Benjamin Cummings, San Francisco, USA, 2007.
4. Molecular Biology of the Cell by B. Alberts, A. Johnson, J. Lewis, M. Raff, K. Roberts, P. Walter, 5th edition, Garland Science, New York and London, 2007.
5. Biochemistry (5th edition) by J.M. Berg, J.L. Tymoczko, L. Stryer, W.H. Freeman and Company, New York, USA, 2008.
6. Current Protocols in Molecular Biology Edited by: Fred M. Ausubel; Roger Brent; Robert E. Kingston; David D. Moore; John A. Smith; Kevin Struhl, John Wiley and Sons, Inc. 2007

MB-104: Microbial Genetics and Genetic Engineering

Scheme of examination

The question paper will consist of three Sections: A, B and C. Section A will consist of 10 questions (at least 3 questions from each unit of syllabus). Section B will consist of 9 questions (3 questions from each unit of syllabus). Section C will consist of 6 questions (2 questions from each unit of the syllabus).

Maximum Marks: 50 (40 Paper + 10 Internal)

Duration: 3 Hrs

Minimum Passing Marks: 13

UNIT-I

Bacterial genome, Plasmids: Structure, classification, copy control, incompatibility, F-factor, col and R plasmids. Gene transfer in bacteria: Transformation, transduction, conjugation (F+, F- and Hfr cells), Genetic map, Genetic mapping of *E. coli*. Mutation *versus* adaptation, Luria Delbruck experiment and significance, Mutagenesis: Spontaneous and induced mutations, deletions, insertion and point mutations, physico-chemical agents of mutation, mutant selection.

UNIT-II

Nucleic Acid Hybridization: Southern, Northern, Western Blotting, DNA finger printing, Foot printing, Gel retardation assay, Restriction endonucleases, Restriction mapping, Polymerase chain reaction, Gel electrophoresis (DNA, RNA and Protein).

DNA and RNA sequencing, (16S-23S rRNA), DNA Probes and their applications, RFLP, RAPD, AFLP, Use of micro arrays to study gene expression.

UNIT-III

Genetic Engineering: Plasmids pBR322, PUC18, phagemids, cosmids, BAC, YAC, Expression vectors, Enzymes (Ligases, topoisomerases, Gyrase, Nuclease), Cloning vehicles, Gene transfer techniques: chemical, electroporation, microinjection, particle bombardment, *Agro-bacterium* mediated gene transfer. Screening of recombinants, Reporter genes. Construction of cDNA and genomic library, Site directed mutagenesis. Applications of genetic engineering in agriculture, industry and medical, Biosafety regulations, Intellectual property rights, Patenting laws in India.

SUGGESTED READINGS:

1. Principles of Gene Manipulation: An introduction to Genetic Engineering by R. W. Old, S. B. Primrose, University of California Press, 1980.
2. Molecular Genetics: An Introductory Narrative by Stent, G.S., Calendar, R. 2nd ed. San Francisco: W.H. Freeman, 1978.
3. Molecular Genetics of Bacteria by Larry Snyder and Wendy Champness, 3rd edition; ASM press; 2007.
4. Fundamental Bacterial Genetics by Nancy Trun and Janine Trempey, 1st edition; Blackwell Science Publishers; 2004.
5. Modern Microbial Genetics by U.N. Streips and R.E. Yasbin, 2nd edition; Wiley Publishers; 2002.

6. Microbial Genetics by Stanly R. Maloy, John E. Cronan, Jr. & David Freifelder, 2nd edition; Narosa Publishing House; 1987.
7. Molecular Biology by David P. Clarke, 1st edition; Elsevier Academic Press; 2005.
8. Molecular Cloning: A laboratory manual by Joseph Sambrook & David Russell, 3rd edition; CSHL press; 2001.
9. DNA Technology: The Awesome Skill by I. Edward Alcamo, 2nd edition; Hardcourt Academic Press; 2001.
10. Molecular Biology of the Gene by James Watson, Tania Baker, Stephen Bell, Alexander Gann, Michael Levine & Richard Losick, 6th Edition; CSHL Press; 2007.

PRACTICALS

Isolation and identification of bacteria by phenotypic and biochemical tests.

Enrichment and isolation of members of Rhodospirillaceae: analysis of photopigments.

Induction of β -galactosidase gene in *E. coli*.

Staining techniques.

Growth curve analysis.

Media preparation, sterilization, inoculation and incubation methods.

Microbiological studies of air, water and soil.

Evaluation of antimicrobial chemical agents by log reduction method

Effect of following on the growth of microbes-

(a) Temperature, (b) Aeration, (c) pH, (d) Salts, (e) Nutrients.

Quantitative tests for Carbohydrates, fats, proteins, chlorophyll, Nucleic acids

Isolation of carbohydrates, proteins and fats.

Chromatographic separation methods for pigments and amino acids.

Study of Enzyme kinetics

Preparation of biologically important buffers

Protein purification using various column chromatography, SDS-PAGE and NATIVE PAGE analysis.

Identification and screening of autotrophic mutants of *E. coli* by replica plating

PCR amplification of DNA

Electrophoresis of DNA/RNA/Protein.

Isolation of DNA/RNA from plant, animal cell, bacteria.

Transformation and Conjugation in Bacteria

Restriction digestion, ligation of DNA and cloning in bacteria

Randomly Amplified Polymorphic DNA (RAPD) analysis in bacteria

16SrDNA gene amplification analysis for sequencing

Semester 2

Theory Papers

Duration

Max. Marks

Paper MB-201	3 Hrs.	40
Paper MB-202	3 Hrs.	40
Paper MB-203	3 Hrs.	40
Paper MB-204 Project/case studies/training		40
Combined Practical	1 Day (6Hrs)	75

MB-201: Virology

Scheme of examination

The question paper will consist of three Sections: A, B and C. Section A will consist of 10 questions (at least 3 questions from each unit of syllabus). Section B will consist of 9 questions (3 questions from each unit of syllabus). Section C will consist of 6 questions (2 questions from each unit of the syllabus).

Maximum Marks: 50 (40 Paper + 10 Internal)

Duration: 3 Hrs

Minimum Passing Marks: 13

UNIT-I

Virology: Brief outline on discovery of viruses, Classification and nomenclature of viruses: distinctive properties and ultra structure of viruses; DNA and RNA viruses, Replication of different group of viruses; Cultivation of viruses in embryonated eggs, experimental animals and cell cultures.

UNIT-II

Assay of viruses: physical and chemical methods (Protein, nucleic acid, radioactivity, electron microscopy), Infectivity assay (plaque method, end point method). Bacteriophage structural organization; Lytic and lysogenic cycles (molecular mechanisms), bacteriophage typing and its application in bacterial genetics; brief details on M13, Mu, T, Lamda and P1 phage.

UNIT-III

Classifications and nomenclature of plant viruses; brief details of plant viruses like TMV, Cauliflower Mosaic Virus and Potato virus X; transmission of plant viruses.

Classification and nomenclature of animal and human viruses. Brief details of RNA viruses Picorna, Orthomyxo, Paramyxo, Toga viruses, Rhabdo, Rota, HIV and Oncogenic Viruses; DNA viruses; Pox, Herpes, Adeno SV40; Hepatitis viruses, viral vaccines.

SUGGESTED READINGS:

1. Principles of Virology: Molecular Biology, Pathogenesis and Control of Animal Viruses by S.J. Flint, L.W. Enquist, V.R. Racaniello, and A.M. Skalka 2nd edition, ASM Press, Washington, DC, 2004.
2. Introduction to Modern Virology EPZ by Nigel Dimmock, Andrew Easton and Keith Leppard, 5th edition, Blackwell Publishing, 2005.
3. Human virology by Collier, L H (Leslie Harold), Kellam, Paul; Oxford, J S (John Sidney). 4th ed., Oxford : Oxford University Press, 2011.

4. Basic Virology by Edward K. Wanger, Martinez Hewiett, David Bloom and David Camerini, 3rd edition, Blackwell Publishing, 2007.
5. Principles of Molecular Virology by Alan J. Cann, 3rd edition, Elsevier Academic Press, 2001.
6. Plant Virology by Roger Hull, 4th edition, Academic press, 2002.

MB-202: Bioinstrumentation

Scheme of examination

The question paper will consist of three Sections: A, B and C. Section A will consist of 10 questions (at least 3 questions from each unit of syllabus). Section B will consist of 9 questions (3 questions from each unit of syllabus). Section C will consist of 6 questions (2 questions from each unit of the syllabus).

Maximum Marks: 50 (40 Paper + 10 Internal)

Duration: 3 Hrs

Minimum Passing Marks: 13

UNIT-I

Microscopy: Principles and use of light microscope, bright-field, dark-field, phase-contrast, fluorescent, electron microscopy (SEM, TEM), confocal microscopy and scanning probe microscopy. Specimen preparation for light microscopy and electron microscopy, staining of specific structures, fixatives and dyes, principle and uses of simple staining and differential staining. Principle and working of instruments used for sterilization.

UNIT-II

Electrophoresis: zonal techniques, supporting medium, vertical, submarine, gradient and two dimensional electrophoresis. Isoelectric focusing. Spectroscopy: Beer-Lambert relationship, components of a spectrophotometer, type of detectors; UV-Vis spectrophotometry, atomic absorption spectroscopy. Applications of spectroscopy.

UNIT-III

Chromatography: Adsorption Chromatography, liquid Chromatography, Gas- liquid Chromatography, Ion exchange Chromatography, Affinity Chromatography, GC-MS, HPLC. pH meter, Centrifugation: Basic principle, working and application of analytical and preparative centrifuges, Differential, density gradient, zonal and isopycnic.

SUGGESTED READING:

1. Principles and Techniques of Biochemistry and Molecular Biology. (6th Edition) by Wilson K. & Walker J. Cambridge University Press. 2008.
2. Biochemistry (6th edition) by Berg J. M., Tymoczko J. L. & Stryer, L. W.H. Freeman and Company, New York; 2007.
3. Foundations in Microbiology (6th edition) by Talaro K. P. & Talaro A. McGraw-Hill College,

Dimensi;2006.

4. Analysis of Biological Molecules: An Introduction to Principles, Instrumentation and Techniques, by Potter G. W. H. & Potter G. W. Kluwer Academic Publishers; 1995.

5. Prescott/Harley/Klein's Microbiology by Willey J., Sherwood L. and Woolverton C. McGraw Hill; 2007.

MB-203: Eukaryotic Microbiology

Scheme of examination

The question paper will consist of three Sections: A, B and C. Section A will consist of 10 questions (at least 3 questions from each unit of syllabus). Section B will consist of 9 questions (3 questions from each unit of syllabus). Section C will consist of 6 questions (2 questions from each unit of the syllabus).

Maximum Marks: 50 (40 Paper + 10 Internal)

Duration: 3 Hrs

Minimum Passing Marks: 13

UNIT-I

General Characteristics and Life Cycle of important Fungi- *Dictyostelium, Rhizopus, Saccharomyces, Candida, Trichoderma, Penicillium, Gliocladium, Fusarium, Helminthosporium, Alternaria, Albugo*. Fungal endophytes of tropical plants and their applications: Endophytic fungi, colonization and adaptation of endophytes. Agriculturally important toxigenic fungi: Biodiversity, toxigenic fungi in sustainable agriculture with special emphasis on biopesticides.

UNIT-II

Mycorrhizal fungi: Diversity of endo- and ectomycorrhizal fungi. Biology of arbuscular mycorrhizal fungi: signaling, penetration and colonization inside roots, culturing and benefits, recent advances in the field of mycorrhiza. Biotechnological applications of yeasts: Yeasts as producers of bioactive molecules such as pigments, lipids, organic acids and EPS, yeasts as probiotics, yeasts in bioremediation, yeasts in alcoholic fermentations.

UNIT-III

General Characteristics and Life Cycle of important Algae- *Volvox and Chlamydomonas, Sargassum and Fucus, Gracilaria and Gelidium*. Algal diversity from morphology to molecules: Importance of algae in production of algal pigments, biofuels, hydrogen production, important bioactive molecules, role of algae in sustainable environment. Important Protozoa- *Entamoeba, Trypanosoma, Plasmodium, Coccidia*.

SUGGESTED READINGS:

1. Fundamentals of the fungi by Elizabeth Moore, Fourth edition, Benjamin Cummings; Landecker;1996.
2. Mycotechnology: Present status and future prospects. Edited by Mahendra Rai.I.K., International Publishing House Pvt. Ltd.; 2007.

3. The Yeast Handbook: Biodiversity and Ecophysiology of yeasts by Carlos A. Rosa and Gabor Peter. Springer- Verlag Berlin Heidelberg; 2006.
4. Algae: Anatomy, Biochemistry and Biotechnology by Laura Barsanti and Paolo Gualtieri. Taylor and Francis Group, LLC; 2006.

MB-204: Industrial and Food Microbiology

Scheme of examination

The question paper will consist of three Sections: A, B and C. Section A will consist of 10 questions (at least 3 questions from each unit of syllabus). Section B will consist of 9 questions (3 questions from each unit of syllabus). Section C will consist of 6 questions (2 questions from each unit of the syllabus).

Maximum Marks: 50 (40 Paper + 10 Internal)

Duration: 3 Hrs

Minimum Passing Marks: 13

UNIT-I

Introduction to fermentation processes, history of fermentation process.

Bioreactors: Design and components- vessel materials, baffles, impellers, inoculation and sampling devices, biosensors etc., biohazard and containment. Types of bioreactors: airlift, fluidized bed, micro carrier, photo bioreactor, stirred bioreactor. Immobilization of cells and its industrial application (Pharmaceutical, food and chemical industries).

UNIT-II

Isolation, selection, screening, preservation and maintenance of industrially important microorganisms. Formulation of fermentation media: energy source, water, nitrogen source, minerals, chelators, growth factors, buffers, precursors, inhibitors and antifoam agents, Optimization of media. Media and air sterilization. Types of fermentation processes with Growth kinetics: Batch, continuous and fed batch. Downstream processing: foam separation, cell disruption, industrial scale centrifugation, liquid-liquid extraction, solvent recovery, chromatography, two phase aqueous extraction, drying and crystallization.

UNIT-III

Production process for Yeast (Bakers, food and fodder), Single cell protein (SCP), Single cell and Single cell oil (SCO), lactic acid, Beer, Wine, Whisky, Sauerkraut, Bread, amylases and proteases, penicillin, streptomycin, Riboflavin, Production of non-microbial product through GEMs: insulin, cell growth factors, tissue plasminogen activator. Bioplastic (PHB, PHA), Steroid transformation. Production of bioinsecticides. Vaccine types: live, attenuated and recombinant and their production. Parameters Affecting Microbial Growth in Foods: Intrinsic, Extrinsic. Food Preservation & Principles of Quality Control: Chemicals, antibiotics, Radiation, Low and high temperature, High-Pressure Processing. Aseptic Packaging, Microbiological quality standards of food, FDA, HACCP, ISI.

Microbial Food Spoilage and Food borne diseases: Staphylococcal, *E. coli*, Salmonellosis, shigellosis. Mycotoxins, Aflatoxins, and viruses.

SUGGESTED READINGS:

1. Biotechnology: A Text Book of Industrial Microbiology by W. Crueger & A. Crueger, Panima Publishing Corporation, New Delhi/Bangalore, 2000.
2. Principles of Fermentation Technology by P.F. Stanbury, W. Whitaker & S.J. Hall, Aditya Books (P) Ltd., New Delhi, 1997.
3. Modern Industrial Microbiology & Biotechnology by N. Okafer, Scientific Publishers, Enfield, USA., 2007.
4. Fermentation Microbiology and Biotechnology by El Mansi & Bryce, Taylor & Francis, London, Philadelphia, 1999.
5. Fermentation Biotechnology by O.P. Ward, Open University Press, Milton Keynes, U.K., 1989
6. Industrial Microbiology: An Introduction by Waites, Morgan, Rockey & Highton, Blackwell Science, 2001.
7. Biochemical Engineering and Biotechnology by B. Atkinson & F. Mavituna, The Nature Press, 1982
8. Microbial Biotechnology: Fundamentals of Applied Microbiology by Glazer & Nikaido, W.H. Freeman and Co., New York, 1995.
9. Modern Food Microbiology, 4th edition by J.M. Jay, Springer, 2006.
10. Fundamental Food Microbiology, 3rd edition by B. Ray., CRC press, 2006.
11. Food Microbiology: Fundamentals and Frontiers, 2nd edition by Michael P. Doyle, Larry R. Beuchat, Thomas J. Montville, ASM press, 2001.
12. Food Microbiology by M.R. Adams & M.O. Moss., Royal Society of Chemistry, 2000.
13. Food Microbiology by M.R. Adams, Royal Society of Chemistry, 2008.

PRACTICALS

- Chick embryo inoculation for viruses.
- Estimation of infectivity titre of a virus sample using Plaque assay.
- Production of purified virus stock and its quantification.
- Study of virus infected plant material.
- Isolation of Probiotic bacteria from milk and curd
- Isolation and identification of important Algae and Fungi.
- Morphology of important Protozoa and Viruses.
- Study of dimorphism in yeast
- Testing of milk by MBRT.
- Isolation and cultivation of fungi and protozoa.
- Microbial examination of food and milk
- Sample collection and biomass determination for small scale fermentation

- To determine the specific growth rate and generation time of a bacterium during submerged fermentations.
- To determine R: S ratio of bacteria by CFU counts.
- To determine phenol coefficient
- To determine Thermal death time and thermal death point.
- To check the calibration of spectrophotometer
- To check and verify Lambert- Beer Law
- To find out the λ -max (absorption spectra) of $K_2Cr_2O_7$, $CuSO_4$, proteins and nucleic acids.
- To grow yeast and fungus in artificial medium and to calculate the yield and productivity of biomass produced.
- To make wine from different juices by fermentation.
- To demonstrate production of sauerkraut and cheese.
- To investigate heavy metals/pesticides etc. in the given food and water sample.

MASTER OF SCIENCE IN MICROBIOLOGY

Semester 3

Marking Scheme for External

Theory Papers	Duration	Max. Marks
Paper MBCC-301	3 Hrs.	40
Paper MBCC-302	3 Hrs.	40
Paper MBCE-303A		
OR	3 Hrs.	40
Paper MBCE-303B		
Paper MBEO-304A		
OR	3Hrs.	40
Paper MBEO-304A		
Combined Practical	1 Day (6Hrs)	75
Academic/Industrial Tour	1-5 Days	00

MBCC-301: Microbial Ecology and Environmental Biotechnology

Scheme of examination

The question paper will consist of three Sections: A, B and C. Section A will consist of 10 questions (at least 3 questions from each unit of syllabus). Section B will consist of 9 questions (3 questions from each unit of syllabus). Section C will consist of 6 questions (2 questions from each unit of the syllabus).

Maximum Marks: 50 (40 Paper + 10 Internal)

Duration: 3 Hrs

Minimum Passing Marks: 13

UNIT-I

Aero Microbiology : Droplet nuclei, aerosol, assessment of air quality, solid - liquid impingement methods, **Aquatic microbiology**: Water ecosystems - types, fresh water (ponds, lake, streams) - marine habitats (estuaries, mangroves, deep sea, hydrothermal vents, salt pans, coral-reefs). Potability of water- microbial assessment of water quality- water purification. Brief account of major water borne diseases

UNIT-II

Inter species interactions: Antagonism, competition, commensalisms, synergism, parasitism and predation. Gause and Hardin's principles of competition. Rumen microbiology, digestion, fermentation and detoxification by microbes, factors influencing rumen microbes. Microbial ecology: Concepts, microbial behavior in ecosystems, microbial biodiversity, interaction among the microbial populations, development of microbial communities. Oxidative transformation of metals: sulfur oxidation, iron oxidation, ammonia oxidation and hydrogen oxidation.

UNIT-III

Waste water treatment :Wastes - types- solid and liquid wastes characterization- solid - liquid; treatments- physical, chemical, biological- aerobic- anaerobic -primary - secondary- tertiary(trickling- activated sludge- oxidation pond- oxidation ditch). Subterranean microbes and bioremediation. Biodeterioration and biodegradation of paints, plastics, rubber, paper, leather, wood, wool, degradation of xenobiotics, pesticides and polymers.

SUGGESTED READINGS:

1. Microbial Ecology By Atlas R.M., Bartha R., Benjamin Cummings Publishing Co, Redwood City, CA, 1993.
2. Environmental Microbiology by A.H. Varnam & M.G. Evans, Manson Publishing Ltd., 2000.
3. Manual of Environmental Microbiology by Christon J. Hurst, Ronald L. Crawford, Jay L. Garland, David A. Lipson, Aaron L. Mills, ASM Press, 2007.
4. Environmental Microbiology by W.D. Grant & P.E. Long, Kluwer Academic Publishers, 1981.

MBCC-302: Soil and Agricultural Microbiology

Scheme of examination

The question paper will consist of three Sections: A, B and C. Section A will consist of 10 questions (at least 3 questions from each unit of syllabus). Section B will consist of 9 questions (3 questions from each unit of syllabus). Section C will consist of 6 questions (2 questions from each unit of the syllabus).

Maximum Marks: 50 (40 Paper + 10 Internal)

Duration: 3 Hrs

Minimum Passing Marks: 13

UNIT-I

Soils: Origin and evolution, soil profiles. Major physiochemical and biological characteristics. Soil microflora: distribution and contribution to ecosystem.

Biogeochemical cycles: Carbon cycle, Nitrogen Cycle, Phosphorus cycle, Sulphur cycle, Iron and Manganese cycle. Bioleaching and biomining. Agricultural and urban waste compost, vermicompost, mushroom compost, silage, methane production, biogas plants. Microbiology of Rhizospheres, phyllosphere and spermosphere,

UNIT-II

Plant Diseases: Physiology of parasitism, mechanism of disease resistance, host parasite relationship. Symptomatology and control measure of various diseases.

Viral diseases: TMV, Yellow vein mosaic of Bhindi, and Papaya leaf curl.

Bacterial diseases: Citrus canker, Crown gall

Fungal diseases: Green ear of bajra, Wheat rusts and Loose and Covered smuts.

Mycoplasmal diseases: Witches broom of potato, Stripe disease of sugarcane

UNIT-III

Biofertilizers: Production technology, standards, storage and application methods for *Rhizobium*, *Azotobacter*, *Azospirillum*, Cyanobacteria, *Azolla*. Biological nitrogen fixation - nitrogenase enzyme - nif genes; symbiotic nitrogen fixation - (*Rhizobium*, *Frankia*)- non-symbiotic microbes- *Azotobacter*-*Azospirillum* PSM, Cellulolytes, VAM and PGPR. Microbial pesticides: biology and chemistry of the biocidal component, mode of action, effect on target organisms, production technology. Microbial insecticides; advantages of microbial insecticides, limitations-Mass production techniques; fermentation, formulation of insecticides, carrier materials quality control etc.

SUGGESTED READINGS:

1. Plant Pathology by Agrios G. N. Academic Press, San Diego;1997.
2. The Nature and practice of Biological Control of Plant Pathogens by Cook R. J. & Baker K. F.; 1983.
3. Amereca Phytopathological Society Press, St. Paul, MN.
4. Environmental Biotechnology by Forster C. F. & John D.A. Ellis Horwood Ltd. Publication;2000.
5. A Manual of Environmental Microbiology by Christon J. H. ASM Publications;2001.
6. Soil Microbiology by Rao, N.S.S. Oxford & IBH Publishing Co., New Delhi;1999.

MBCE-303A: Medical Microbiology

Scheme of examination

The question paper will consist of three Sections: A, B and C. Section A will consist of 10 questions (at least 3 questions from each unit of syllabus). Section B will consist of 9 questions (3 questions from each unit of syllabus). Section C will consist of 6 questions (2 questions from each unit of the syllabus).

Maximum Marks: 50 (40 Paper + 10 Internal)

Duration: 3 Hrs

UNIT-I

Early discovery of pathogenic microorganisms. Pathogenicity and virulence; Quantitative measures of virulence: minimal lethal dose (MLD), LD 50, ID 50, TCID 50. Normal microbial flora of human body; role of the resident flora. Nosocomial infection, common types of hospital infections and their diagnosis and control. Establishment, spreading, tissue damage and anti-phagocytic factors; mechanism of bacterial adhesion, colonization and invasion of mucous membranes of respiratory, enteric and urogenital tracts.

UNIT-II

Important diseases of human beings (short description of causal agent, pathogenesis, diagnosis and treatment)

Bacterial diseases: Typhoid, Syphilis, Cholera, Gonorrhoeae, Tuberculosis, Diphtheria, Tetanus, Plague, Botulism, Meningitis, Pneumonia, Enteritis.

Viral diseases: Influenza, Herpes, AIDS, Rabies, SARS, Human Pox, Yellow fever, Mumps and Measles.

Fungal diseases: Ringworm, Toxoplasmosis.

Important bacterial (Anthrax, Black quarter, Tuberculosis, Brucellosis) **and viral** (Foot and mouth disease, Rinderpest, Cow pox, Rabies) **diseases of domestic animals**, their causal agents, epidemiology, pathogenesis, diagnosis, vaccine and treatment).

UNIT-III

Antimicrobial therapy; Antibiotics and their classification, mode of action, Antimicrobial resistance: Multidrug efflux pumps, X-MDR *M. tuberculosis*, Methicillin-resistant *S. aureus* (MRSA), various methods of drug susceptibility testing, antibiotic assay in body fluids. Brief account on available vaccines and schedules. Coordinated regulation of virulence genes, two component signal transduction systems, type 1-IV secretion systems, biofilms and quorum sensing.

SUGGESTED READINGS:

1. Jawetz, Melnick, & Adelberg's Medical Microbiology by Brooks GF, Butel JS, Morse SA, Melnick JL, Jawetz E, Adelberg EA. 23rd edition. Lange Publication. 2004.
2. Cellular Microbiology by Cossart P, Boquet P, Normark S, Rappuoli R eds. 2nd edition. American Society for Microbiology Press. 2005.
3. Bacterial Pathogenesis: A molecular approach by Salyers AA and Whitt DD eds. American Society for Microbiology Press, Washington, DC USA. 2002.
4. Pathogenomics: Genome analysis of pathogenic microbes by Hacker J and Dorbindt U. ed. Wiley-VCH. 2006.
5. Molecular Microbiology: Diagnostic Principles and Practice by Persing DH, Tenover FC, Versalovic J, Tang Y, Unger ER, Relman DA, White TJ eds. American Society for Microbiology Press, 2004.

6. Infectious Disease Epidemiology: Theory and Practice by Nelson KE, Williams CM, Graham NMH eds. An Aspen Publication. 2001.

MBCE-303B: Basics of Medical Laboratory Techniques (BMLT)

Scheme of Examination

The question paper will consist of three Sections: A, B and C. Section A will consist of 10 questions (at least 3 questions from each unit of syllabus). Section B will consist of 9 questions (3 questions from each unit of syllabus). Section C will consist of 6 questions (2 questions from each unit of the syllabus).

Maximum Marks: 50 (40 Paper + 10 Internal)

Duration: 3 Hrs

Minimum Passing Marks: 13

UNIT-I

Analysis of amino acids, screening tests, quantitative tests, test for specific amino acids, determination of proteins in serum, plasma and CSF, determination of glucose in body fluids, glucose tolerance test, analysis of ketone bodies, method of estimation of lactate, pyruvate and glycated hemoglobin in blood, analytical methods for estimation of triglycerides, high density lipoproteins, low density lipoproteins, apolipoproteins.

UNIT-II

Laboratory application of nucleic acid technologies to elucidate, diagnose, monitor disease state and to evaluate non-disease status, basic principles and techniques involving nucleic acid in relation to laboratory evaluation of disease, Clinical testing process, quality assurance, clinical validation and accreditation.

UNIT-III

Molecular analysis of chromosomal aberrations in leukemias and lymphomas, molecular diagnosis of genetic diseases, application of molecular methods in clinical microbiology, antimicrobial therapy; antimicrobial resistance, historical aspects advantage of DNA over traditional serology, DNA degradation and environmental damage, quality assurance, standard, databank, legal challenge.

SUGGESTED READINGS:

1. Methods in Molecular Biology: Amino Acid Analysis Protocols By Catherine Cooper, Nicolle Packer and Keith Williams. Publisher: Humana Press
2. Medical Biochemistry [Paperback] By John Van Pilsum. Publisher: University of Minnesota Press.
3. Clinical Biochemistry: Metabolic and Clinical Aspects [Paperback] By William J. Marshall and Stephen K. Bangert. Publisher: Churchill Livingstone.
4. Clinical Chemistry: Techniques, Principles, Correlations (Bishop, Clinical Chemistry) [Hardcover] By Michael L Bishop, Edward P Fody and Larry E Schoeff. Publisher: Lippincott Williams and Wilkins
5. Nucleic Acid Amplification Technologies: Application to Disease Diagnosis [Hardcover] By H Olsvik (Editor), S Morse (Editor), O Lee (Editor). Publisher: Eaton Publishing, USA.
6. Chromosomal Alterations: Methods, Results and Importance in Human Health [Hardcover] By Gunter Obe and Vijayalaxmi. Publisher: Springer
7. Handbook of Hematologic Pathology (Diagnostic Pathology) [Hardcover] By Harold R. Schumacher, Sanford A. Stass and William A. Rock. Publisher: Marcel Dekker Inc.
8. Molecular Diagnosis of Genetic Diseases (Methods in Molecular Medicine) (Methods in Molecular Biology) (v. 1) [Hardcover] By Rob Elles. Publisher: Humana Press.

9. Color Atlas and Textbook of Diagnostic Microbiology [Hardcover] By Elmer W Koneman, Stephen D Allen, William M Janda, Paul C Schreckenberger and Washington C Winn. Publisher: Lippincott
10. Molecular Diagnostics: Promises and Possibilities [Hardcover] By Mousumi Debnath, Godavarthi B.K.S. Prasad and Prakash S. Bisen. Publisher: Springer
11. Henry, John Bernard, Todd Sanford and Davidson, 2002. Clinical diagnosis and management by laboratory methods. W.B. Saunders & Co.
12. Fischbach Francis A, 2003. Manual of laboratory and diagnostic tests. Philadelphia, J.B. Lippincott & Co, N.Y.
13. Gradwohl, 2000. Clinical laboratory methods and diagnosis ed. Alex.C. Sonnenwirth & Leonard Jarret. M.D.B.I. Publications, New Delhi.
14. Sood, R, 2005, Medical Laboratory methods and interpretation, Jaypee brothers medical publications, New Delhi.

MBEO-304A: Immunology

Scheme of examination

The question paper will consist of three Sections: A, B and C. Section A will consist of 10 questions (at least 3 questions from each unit of syllabus). Section B will consist of 9 questions (3 questions from each unit of syllabus). Section C will consist of 6 questions (2 questions from each unit of the syllabus).

Maximum Marks: 50 (40 Paper + 10 Internal)

Duration: 3 Hrs

Minimum Passing Marks: 13

UNIT-I

Historical background: Humoral and Cellular components of the immune system. Innate Immunity: Skin & mucosal surface, Physiological Barriers, Phagocytic barriers, Inflammation, Adaptive immunity. Cells and Organs of Immune System. Antigens: Structure, properties, types, epitopes, haptens. Immunogens, Adjuvants.

UNIT-II

Antibodies: Structure, function and diversity, antibody mediated functions, classes and biological activities. Monoclonal antibodies. Antigen-Antibody Interaction. Major Histocompatibility Complex-structure, functions and genes. Cytokines (Properties, receptors, antagonism & secretion). The complement system (functions, components, activation, regulation and deficiencies). Cell mediated effector responses: Cytotoxic T-cells, natural killer cells, antibody-dependent cell-mediated cytotoxicity.

UNIT-III

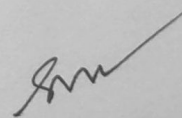
Hypersensitive reactions (Type I, II, III and delayed type (DTH). Immune response to infectious diseases: viral, bacterial and protozoan. Vaccines. Immuno-deficiencies.

Transplantation; Graft rejection, mechanism and prevention, HLA and disease.

Autoimmunity; Organ specific and systemic, Autoantibodies, experimental models

SUGGESTED READINGS:

1. Kuby Immunology by Kindt TJ, Goldsby RA, Osborne BA, Kuby J: 6th edition. New York. WH Freeman; 2006.



2. Cellular and Molecular Immunology by Abbas AK, Lichtman AH, Pillai S: Saunders Elsevier; 2007.
3. Immunobiology: The immune system in health and disease by Janeway CA, Travers P, Walport M, Shlomchik MJ: 6th edition. New York. Garland Science Publishing; 2005.
4. Medical Microbiology and Immunology by Levinson W, Jawetz E: Lange publication; 2001.
5. Fundamental Immunology by Paul WE: 4th edition. New York. Raven Press; 2000.
6. Roitt's Essential Immunology by Delves PJ, Martin SJ, Burton DR, Roitt IM; 11th edition. Blackwell Publishing/Oxford Univ. Press; 2006.

MBEO-304B: Human Physiology

UNIT-I

BASIC CELL PHYSIOLOGY: Organization of the human body (cell, tissue, organ and organ system) Cell-Introduction, Cell Organelles, Cell membrane, Movement of the substances and water through the cell membrane, Bioelectric potentials

BLOOD, LYMPH AND CIRCULATORY SYSTEM-Functions of Blood, hematopoiesis, erythropoiesis, granulocytes and agranulocytes, Macrophage system, Blood groups. Lymph and its role.

CIRCULATORY SYSTEM: Functional anatomy of the heart, Properties of cardiac muscles, Conducting system of the heart, Pressure changes during cardiac cycles, Capillary circulation, Arterial and venous blood pressure.

UNIT-II

GASTRO INTESTINAL SYSTEM(Digestive system): General structure of alimentary canal, Organs- Mouth, Pharynx, Oesophagus, Stomach, Small intestine, Large Intestine, Rectum. Glands and their secretion - Salivary, Liver, and Pancreas. Digestion of food.

RENAL PHYSIOLOGY- Structure of kidney- Nephron, Bowman's capsule, renal tubule, Bladder, Ureters, Urthra, Process of urine formation- glomerular filtrate, Reabsorption, mechanism of secretion, Concentrating and diluting mechanism of urine, Dialysis

RESPIRATORY SYSTEM- Upper and lower respiratory system, Organs involved, Mechanism of breathing, Regulation of respiration, Transport of gases, Hypoxia, Artificial ventilation.

UNIT III

REPRODUCTION SYSTEM: Organs (testis and ovary). Male primary and secondary reproductive organs - Testis, Scrotum, vas deferens, seminal vesicles, prostate gland, Urethra, penis. Female primary and secondary reproductive organs- Ovary, Fallopian tube, Uterus, Vagina. Phages of reproduction.

NERVOUS SYSTEM: Neurons, Central (brain and spinal cord) peripheral (somatic and Autonomic) system. Physiology of nervous system.

ENDOCRINE GLANDS(Hypothalamus, Pituitary, Pineal, Thyroid, Parathyroid, Adrenal, Pancreas, Thymus, Testes, Ovaries), their hormones and functions

SUGGESTED READINGS:

1. Guyton AC and Hall JE, Text book of medical physiology.
2. *Human Physiology: An Integrated Approach*, 6th Edition by Dee Unglaub Silverthorn
3. JOHNSON, Leonard R, Essential Medical Physiology
4. Nordin M and Frankel VH, Basic biomechanics of the musculoskeleton system, Lippincot, Williams and Wilkins.
5. Human Biology and Health. Upper Saddle River, NJ: Pearson Prentice Hall. 1993. ISBN 0-13-981176-

6. Gray's anatomy: the anatomical basis of clinical practice. Editor-in-chief, Susan Standing (40th ed.). London: Churchill Livingstone. 2008. ISBN 978-0-8089-2371-8.

PRACTICALS

- Study of coliform bacteria in water samples from different sewage sources
- Study of decolouration of distillery or textile industrial waste.
- Study of microbial degradation of hydrocarbons(s) or pesticide(s).
- Study of fungal degradation of wood.
- Study of Bacterial interactions (antagonism etc)
- Isolation and cultivation of *Azotobacter*, *Rhizobium*, *Azospirillum*, *Cyanobacteria*, *Actinomycetes*, *Mycorrhiza*.
- Biofertilizer production using *Rhizobium*
- Biofertilizer production using Mycorrhiza
- Soil analysis for various parameters like moisture content, water holding capacity, Micro and macronutrients like carbon, nitrogen, carbonates etc
- Determination of following enzyme activities in the soil sample: amylase, cellulose, xylanase, protease and phosphatase.
- Laboratory methods for studying soilborne diseases
- a. Isolation of soilborne pathogen
- c. Chemical control of soilborne pathogens using acylanilide and alkyl phosphonates.
- Bacterial diseases of food plants
- a. Isolation of pathogenic bacteria from rotten vegetables and fruits
- b. Biochemical and physiological tests for detection of pathogens in vegetables and fruits
- To study normal micro-flora of Skin, Respiratory tract, Gastro-intestinal tract, uro-genital tract.
- To study cultural characteristics of pathogenic bacteria on various selective and differential media:
- To study pathogenicity of *Staphylococcus aureus* by coagulase test.
- To study antimicrobial susceptibility using an octadisc.
- To determine the minimal inhibitory concentration (MIC) of an antibiotic on bacteria and fungi
- Determination of Blood group and Rh factor. Blood cell counts. Serological tests: Radio immunodiffusion, Immuno-electrophoresis, DOT ELISA, Sandwich ELISA, Ochterlony double diffusion, agglutination test, Fluorescent Antibody test.
- Monitoring blood pressure, pulse rate, clotting time, bleeding time.
- Haemoglobin estimation, erythrocyte sedimentation rate, packed cell volume. Prothrombin time, differential count.
- Total red blood cell count, total white blood cell count, platelet count, eosinophilic count, reticulocyte count.
- Monitoring blood sugar, urea, uric acid, creatinine.
- Monitoring cholesterol, triglyceride, high density lipoproteins, low density lipoproteins, very low density lipoproteins.

Estimation of sodium, potassium, calcium, chloride, bicarbonate, phosphorus and magnesium in biological fluids.

Collection of urine and blood, types of preservative, physical examination; volume, colour, odour, appearance, specific gravity and pH.

Reducing sugar-benedict test, protein: heat and acetic acid test, and sulfosalicylic acid method, ketone bodies-roth era's test, bile pigment (fouchet method), bile salt (hay's test), urobilinogen-ehrich aldehyde test and bence jones protein test, renal clearance test-urea, creatine, test for mucin.

Antigen antibody assay, ELISA tests, immuno- electrophoresis.

Semester 4		
Theory Papers	Duration	Max. Marks
Paper MBCC-401	3 Hrs.	40
Paper MBCE-D	*10 min	80
Paper MBEO-402A		
OR	3 Hrs.	40
Paper MBEO-402A		
Combined Practical	1 Day (6Hrs)	75

*Each student shall give a presentation on his/her dissertation work of 10 min

Students are advised to complete Dissertations preferably in some outside research institute/industry or otherwise in the University in the first 45 days starting from the beginning of the session.

MBCC-401: Bioinformatics and Computer Applications

Scheme of examination

The question paper will consist of three Sections: A, B and C. Section A will consist of 10 questions (at least 3 questions from each unit of syllabus). Section B will consist of 9 questions (3 questions from each unit of syllabus). Section C will consist of 6 questions (2 questions from each unit of the syllabus).

Maximum Marks: 50 (40 Paper + 10 Internal)

Duration: 3 Hrs

Minimum Passing Marks: 13

UNIT-I

Bioinformatics: Introduction, objectives. Bioinformatics and data analysis. Database concept, elementary knowledge of structure query language. Microbiological and Virology databases, cell gene banks related sites, biodiversity information databases.

UNIT-II

Metabolic pathway engineering. Genome analysis. DNA/Genome sequencing. Finding and retrieving sequences. Sequence data base. Submission of sequence to databases. Sequence formats. Protein and nucleic acid sequence database, Identifying protein sequence from DNA sequence.

UNIT-III

Computer applications: Computers and their organization, Hardware, software, operating system (Command line and WIMP) Application packages for microbiologists, Data processing and presentation (Spreadsheet and Statistical analysis) LIMS, computer graphics, Computer : CAL in microbiology, Use of computer as audio visual aid.

SUGGESTED READINGS:

1. Bioinformatics: A Practical Guide to the Analysis of Genes and Proteins by Baxevanis A.D. and Ouellette, Third Edition. John Wiley and Son Inc., 2005.
2. Bioinformatics Sequence and Genome Analysis by Mount D.W., CSHL Press, 2004.
3. Introduction to Bioinformatics by Tramontano A., Chapman & Hall/CRC, 2007.
4. Understanding Bioinformatics by Zvelebil, M. and Baum, Chapman & Hall/CRC, 2008.
5. Bioinformatics: Methods Express By: Paul H Dear, Scion Publishing Ltd, 2007
6. Bioinformatics: Sequence and Genome Analysis by David W. Mount, Cold Spring Harbor Laboratory, 2004.

MBCE-D: Research Project/Review/Case Study

Scheme of examination

The student shall prepare a report of his/her work carried out as mentioned below and shall present it to the external examiner. The examiner will evaluate the work carried out and shall award the marks accordingly.

Maximum Marks: 80

Duration: 10 min per student

Minimum Passing Marks: 20

The student will select a topic of research in consultation with his/her supervisor/guide to do a research work, write a review or carry out a case study on any topic related to microbiology or allied subjects.

MBEO-402A: Biostatistics

Scheme of examination

The question paper will consist of three Sections: A, B and C. Section A will consist of 10 questions (at least 3 questions from each unit of syllabus). Section B will consist of 9 questions (3 questions from each unit of syllabus). Section C will consist of 6 questions (2 questions from each unit of the syllabus).

Maximum Marks: 50 (40 Paper + 10 Internal)

Duration: 3 Hrs

Minimum Passing Marks: 13

UNIT-I

Definition of statistics, symbols, notations and terminology of statistics: Sampling and estimation of population parameters, Random sampling, Sampling size in random sampling, stratified two stage cluster and sequential sampling, Bias in sampling Presentation of research results, Graphic presentation.

UNIT-II

Interval Data: Construction of a histogram, interpretations of histogram, the normal distribution, the mean, mode, median and standard deviation, representing the normal curve, Chi square test, goodness of fit. Count data: examples of count data (bacterial cell count, radioactivity, colony and plaque counts), statistical treatment to count data. Poisson distribution, Standard error, confidence limits of counts.

UNIT-III

Simple Probability: Regression and Correlation, simple linear regression, Coefficient of determination. Brief introduction to the need and application on curvilinear and multiple regression. Use of partial correlation and partial covariance. Detecting association between a pair of species. Cole's measure of association and point correlation coefficient.

Statistical basis of biological assays: Response-Dose relationship, direct and indirect assay, statistical analysis of LD50.

SUGGESTED READINGS:

1. Sampling Techniques by Cochran W. G., Wiley eastern Ltd, New Delhi.
2. Fundamentals of Biostatistics, by Irfan Ali Khan and Atiya Khanum, (2nd edition). Ukaaz Publications, Hyderabad.
3. Introduction to probability theory and its applications, by Feller W., Asia Publishing House, Mumbai.
4. An introduction to Biostatistics by Glover T. and Mitchell K., McGraw-Hill, N.Y; 2002.
5. Fundamentals of statistics. Goon, Gupta and Dasgupta- World Press, Kolkota.
6. Design and analysis of experiments by Montgomery D. C., John Wiley and Sons.
7. Biostatistics, a foundation for analysis in the health Sciences, (7th edition), Wayne Daniel; 2007.

MBEO-402B: Research Methodology

UNIT-I

RESEARCH FORMULATION AND DESIGN – Research methods vs. Methodology. Types of research – Descriptive vs. Analytical, Applied vs. Fundamental, Quantitative vs. Qualitative, Conceptual vs. Empirical, concept of applied and basic research process, criteria of good research. Defining and formulating the research problem, selecting the problem, necessity of defining the problem, importance of literature review in defining a problem, literature review-primary and secondary sources, reviews, monograph, patents, research databases, web as a source, searching the web, critical literature review, identifying gap areas from literature and research database, development of working hypothesis.

PRIMARY AND SECONDARY DATA: Classification of Data; Secondary Data: Uses, Advantages, Disadvantages, Types and sources; Primary Data Collection: Observation method, Focus Group Discussion, Personal Interview method.

Sampling: Sampling concepts- Sample vs Census, Sampling vs Non Sampling error; Sampling Design- Probability and Non Probability Sampling design; Determination of Sample size- Sample size for estimating population mean, Determination of sample size for estimating the population proportion.

UNIT-II

RESEARCH ETHICS, IPR AND SCHOLARY PUBLISHING: Ethics-ethical issues, ethical committees (human & animal); IPR- intellectual property rights and patent law, commercialization, copy right, royalty, trade related aspects of intellectual property rights (TRIPS); scholarly publishing- design of research paper, citation and acknowledgement, plagiarism-self plagiarism, reproducibility and accountability, referencing its styles .

RESEARCH REPORT WRITING: Types of research reports – Brief reports and Detailed reports; Report writing: Structure of the research report- Preliminary section, Main report, Interpretations of Results and Suggested Recommendations; Report writing: Formulation rules for writing the report: Guidelines for presenting tabular data, Guidelines for visual Representations.

UNIT-III

DESCRIPTIVE STATISTICS: Measurement Scales, Sources of error in measurement. Measures of central Tendency (Mean; medium, Mode), Measures of dispersion (range, mean deviation, standard deviation) Graphical representation of Data.

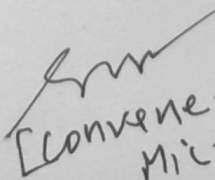
USE OF TOOLS / TECHNIQUES FOR RESEARCH: Methods to search required information effectively, Reference Management Software like Zotero/Mendeley, Software for paper formatting like LaTeX/MS Office, Software for detection of Plagiarism

SUGGESTED READINGS:

1. Anthony, M., Graziano, A.M. and Raulin, M.L., 2009. Research Methods: A Process of Inquiry, Allyn and Bacon.
2. Garg, B.L., Karadia, R., Agarwal, F. and Agarwal, U.K., 2002. An introduction to Research Methodology, RBSA Publishers.
3. Carlos, C.M., 2000. Intellectual property rights, the WTO and developing countries: the TRIPS agreement and policy options. Zed Books, New York.
4. Kothari, C.R., 1990. Research Methodology: Methods and Techniques. New Age International. 418p.
5. Coley, S.M. and Scheinberg, C. A., 1990, "Proposal Writing", Sage Publications.
6. Sinha, S.C. and Dhiman, A.K., 2002. Research Methodology, EssEss Publications. 2 volumes.
7. Day, R.A., 1992. How to Write and Publish a Scientific Paper, Cambridge University Press.
8. Trochim, W.M.K., 2005. Research Methods: the concise knowledge base, Atomic Dog Publishing. 270p.
9. Fink, A., 2009. Conducting Research Literature Reviews: From the Internet to
10. Wadehra, B.L. 2000. Law relating to patents, trade marks, copyright designs and geographical indications. Universal Law Publishing.
11. Leedy, P.D. and Ormrod, J.E., 2004 Practical Research: Planning and Design, Prentice Hall.
12. Panneerselvam, R. 2000, Research Methodology, Prentice-Hall of India, New Delhi.
13. Satarkar, S.V., 2000. Intellectual property rights and Copy right. EssEss Publications. Paper. Sage Publications

PRACTICALS:-

Usage of NCBI, PUBMED resources
Retrieval of DNA and Protein sequence from online databases
Construction of phylogenetic tree
Visualization of protein secondary structures
Exercise based on BLAST
Multiple sequence alignment using Clustal X Software
Softwares for Gene identification
Exercises based on mean, median and mode.
Exercises based on standard deviation.
Exercises based on count data (bacterial cell count, colony and plaque count).
Determination of response-dose relationship.
Direct and indirect assay of enzymes, drugs etc.


[Convener B05
Microbiology]

**M.G.S. UNIVERSITY,
BIKANER**

SYLLABUS

**SCHEME OF Examination and
Syllabus**

FACULTY OF LAW

**B.A. LL.B. 5 YEAR
INTEGRATED**

B.A. LL.B. 5 YEAR INTEGRATED

(HONOURS COURSE FOR SESSION 2019-20)

1ST Year (Semester – I)

Paper 1.1 General English I

Teaching Hrs. L-04

Total: 100

Exam Hrs. – 3

Marks: Internal 30 External 70

Module 1: Essential Language Skills

- I. Transcription of Phonetic Symbols
- II. One word for many
- III. Synonyms and Antonyms
- IV. Word formation-Prefix, Suffix

Module 2: Grammar and Usage

- I. Part of speech , Articles
- II. Tenses, Sequence of Tenses
- III. Modals, punctuation, capitalization
- IV. Active and Passive Voice
- V. Direct and Indirect Narration
- VI. Subject verb agreement

Module 3: Comprehension

- (a) Brief Writing and drafting of Law reports
- (b) Writing of Case Comments
- (c) Essay Writing on topics of legal interest

Following texts to be compiled by Macmillan

M.K. Gandhi	The Birth of Khadi
JL. Nehru	A Tryst with Destiny
Martin L. King Jr.	I have a Dream
A.P.J. Abdul Kalam	Vision for 2020

Module 4: Composition Skills

- I. Report writing, Book Review
- II. CV's and job Application
- III. Paragraph Writing, Precise, Essay Writing

Module 5: Legal Term

- (a) **Legal Terms:** Terms used in Civil Law & Criminal Law, Accused, Confession, Dying Declaration, FIR, Plant, written statement, plaintiff, defendant, appeal, tribunal, divorce, legitimate, illegitimate, adoption, maintenance, alimony, valid void, litigation, monogamy, bigamy, polygamy, crime agreement, contract, fraud, minor indemnity, guarantee, bailment, pledge, libel, slander, defamation, homicide, gender, suicide, executive, legislature, judiciary, constitution, negligence, nuisance, precedent, mortgage, prospective, retrospective, ultra vires, will, summon, warrant, public & private.
- (b) Latin Words and Expression

Select Bibliography:

- Sasikumar,V.,Dutta and Rajeevan,Acourse in Listening and Speaking-I Founation Books.2005.
- Sawheny,Panja and Verma eds.English At Workplace, Macmillan 2003.
- Singh,R.P.Professional communication.OUP2004.
- Judith Leigh.CVs and job Applications.OUP.2004.
- Arthur Waldhorn and Arthur Zeiger,English Made simple.Rupa and co.
- Gunashekar ed.A Foundation English course for Undergraduates.Book I,CIEFL,Hyderabad.

- Quirk and Greenbaum: A University Grammar of English, Longman, 1973
- Thomason, A.J. and A.V. Martinet. A Practical English Grammar, New Delhi OUP, 2005

Paper 1.2 History – I
HISTORY OF INDIA FROM EARLIEST TIMES TO 1206 A.D.

Teaching Hrs.: L-04

Total: 100

Exam Hrs. – 3

Marks: Internal 30 External 70

Module : 1

Main sources of Ancient Indian History; Different Samvat (era) prevalent (used) in Ancient Indian History; Impact of Geography on Indian History and Culture; Features of Indus-Saraswati Civilization; Society, Polity, Economy, Culture and Religion as reflected in Vedic literature; the rise of Janpadas and Republics.

Module : 2

Rise of Magadha upto the Nandas; Magadha Empire and contribution of Chandragupta Maurya; Ashoka – His Policies and Dhamma; Mauryan Administration, Cultural Achievements of Mauryan period; Causes of decline of the Mauryan Empire.

Module : 3

Different political powers in Pre-Gupta period - Sunga, Satavahan, Saka and Kushana; Prominent rulers and their contribution in Pre-Gupta Period - Pushyamitra Sunga, Gautamiputra Shatkarni, Rudradaman I and Kanishka I; Economic Progress in the Pre-Gupta period with special reference to trade and commerce.

Module : 4

Early History of the Gupta Dynasty upto Chandra Gupta-I; Prominent Rulers of Gupta Dynasty and their achievements - Samudra Gupta, Chandra Gupta-II, Skand Gupta; Features of Gupta Administration; Cultural Revivalism and development of Science and Technology during Gupta Period.

Module : 5

India in the Post-Gupta Period: Formation and Expansion of Vardhana Empire– Harsh; Features of Chola, Chalukya and Pallava administration; Sangam Age- Literature, Society and Culture; Tripartite Struggle, Contribution of Vignaraja Chahamana, Kumara Pala Chalukya and Bhoja Parmara; Factors leading to disintegration of Rajput states.

Select Bibliography:

- R.S. Tripathi : History of Ancient India.
- N.N. Gosh: Early History of India.
- R.K. Mookerji: Man and Thought in Ancient India.
- R.C. Majumdar: The History and Culture of the Indian People. Relevant volumes, Bhartiya Vidya Bhawan, Bombay.

Paper 1.3 Economics-I (Micro Economics)

Teaching Hrs.: L-04

Total: 100

Exam Hrs. – 3

Marks: Internal 30 External 70

Module : 1

Introduction: Meaning, Nature and Scope of Micro Economics, Basic Economic Problems. Utility Analysis: Law of Diminishing Marginal Utility, Equi-marginal utility.

Module : 2

Analysis of Demand: Concept, Elasticity and their types, Determinants and Importance of Elasticity of Demand Supply Analysis: - Concept and Law of Supply, Factors Affecting Supply.

Module : 3

Laws of Returns: Production Function in Short-Run and Long Run. Revenue Concepts - Total Revenue, Marginal Revenue, Average Revenue and their relationship. Cost Analysis: - Accounting Costs and Economic Costs, Short Run Cost Analysis: - Fixed, Variable and Total Cost Curves, Average and Marginal Costs.

Module : 4

Pricing Under Various Market Conditions: Perfect Competition-Equilibrium of Firm and Industry under Perfect Competition. Monopoly: Price Determination. Monopolistic Competition: Price and Output Determination under Monopolistic Competition.

Module : 5

Rent: Concept, Meaning, Types, Theories of Rent–Classical and Modern; Quasi Rent; Wages: Meaning, Kinds and Theories; Interest: Concept, Gross and Net Interest, Theories of Interest: Classical, Neo – Classical, Liquidity Preference and Modern; Profit: Meaning, Characteristics, Gross and Net Profit, Theories of Profit.

Select Bibliography:

- Textbook of Economic Theory - Stonier and Hague; Longman Green and Co., London.
- Introduction to Positive Economics - Richard G. Lipsey
- Business Economics (Micro) - Dr. Girijashankar; Atharva Prakashan, Pune.
- Principles of Economics - M. L. Seth; Laxmi Narain Agarwal, Agra.
- Micro Economics - M. L. Jhingan; Vrinda Publications, New Delhi.
- Managerial Economics - Theory and Application - D. M. Mithani
- Micro Economic Theory – Dr. V. C. Sinha – Sahitya Bhawan, Agra.

Paper 1.4 Sociology-I

Teaching Hrs.: L-04
Total: 100

Exam Hrs. – 3
Marks: Internal 30 External 70

Module 1 : Basic Concepts

Sociology, Meaning, Scope and Subject matter. Society, Community, Association, Institutes, Mores Social Group: Meaning and Classification of Social groups, Family, Traditional and Modern

Module 2 : Pioneers of Social Thought

Auguste Comte: Law of three stages, Positivism and Religion of humanity, Emile Durkhum: Social Solidarity, The theory of Division of Labour, theory of Religion and Suicide, Karl Marx:Maxim Concept of Social change, Class struggle, Division of Labour, Marweber : Sociology of Religion, The Concept of authority and the Concept of Social action

Module 3 : Social Change and Social Control

Social Change, meaning, factors, Distinction between Social and Cultural Change, Social Control, Meaning and importance of Social control, Means of Social Control, Public opinion and propaganda, Renowned and Punishment, Agencies of Social Control: Religion, Family and State

Module 4 : Sociology of Profession

Profession and Professionalisms, Distinction between Profession and Occupation. Society and Professional Ethics, Sociology of Law, Relationship between Law and Society.

Module 5 : Sociological School of Jurisprudence

Rosco Pound, Duguit, Ihering, Ehrlich

Select Bibliography:

- Maclver & Page 'Society': An Introductory Analysis
- M.Haralambos 'Sociology': Theme and Perspectives
- T.B.Bottomore 'Sociology': A Guide to problems and Literature
- David G. Mandelbaum 'Society in India'
- Ram Ahuja, Society in India.
- M.S.A. Rao, Urbanization and Social Change
- Yogendra Singh, Modernization of Indian Tradition
- Abraham: Social Thinkers
- Roueek: Social Control
- K.M. Kapadia :Marriage & Family in India.

Paper 1.5 Legal methods

Teaching Hrs. : L-04

Total : 100

Module : 1

Concept of law, meaning and definitions, Concept of Justice, stability and peaceful change

Module : 2

Classification of law, kinds of law-International law and municipal law, Public law and Private law.

Module : 3

Principals and sources of Law: Basic concept of Indian legal system, Rule of Law, Separation of powers, Constitutionalism, Principles of natural justice, Sources of law: Custom, Legislation, Precedent and Equity as sources of law

Module : 4

Legislative Procedure: Kinds of Bills, Kinds of Legislations, Supreme and Subordinate, Meaning and kinds of delegated legislation, reasons for its growth conditional legislation, safeguards against delegated legislation

Module : 5

Legal clinical methods

Select Bibliography:

- Avtar singh-Jurisprudence
- A.K.Anthony- Law for laymen
- B.M.Tripathi - Jurisprudence
- Cardozo-Nature of Radical Process
- Glanville Williams
- I.L.I. Publication on Legal Research
- N.R. Madhva Menon- Clinical legal Education
- V.D. Mahajan--Jurisprudence

Paper 1.6 Law of Contract – I

Contract-I (General Principles of Contract and Consumer Protection Act, 2019)

Teaching Hrs.: L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

History and nature of contractual obligations. Agreement and contract: definitions, elements, characteristics and kinds. Proposal and acceptance - various forms, essential elements, communication and revocation - proposal and invitation to proposal, floating offers, tenders. Consideration - need, meaning, kinds, essential elements - Privity of contract and of consideration - its exceptions, adequacy of consideration, present, past and future Consideration, unlawful consideration and its effects.

Module : 2

Capacity to Contract - meaning - incapacity to contract - minor's Agreements definition of 'minor', necessities supplied to a minor, agreements beneficial and detrimental to a minor, affirmation-restitution in cases of minor's agreements, fraud by a minor, agreements made on behalf of a minor, minor's agreements and estoppels.

Consent -Free consent - Its need, definition and factors vitiating free consent.

Coercion-definition, essential elements, duress and coercion Various illustrations of coercion, doctrine of economic duress, effect of coercion, Undue Influence-definition, essential elements, parties between whom such influence is presumed, where liability to prove the existence of undue influence, independent advice, Pardahanashin women, unconscionable bargains, effect of undue influence, misrepresentation - definition, misrepresentation of law and of fact, their effects and illustration, Fraud-definition, essential elements-suggestions, when does silence amounts to fraud?, Active-concealment, importance of intention. Mistake - definition, kinds, fundamental error, mistake of law and of fact, their effects.

Module : 3

Legality of objects: Void and voidable agreements - void, voidable, illegal and unlawful agreements and

their effects, Lawful and unlawful considerations and objects, Void Agreements - Agreements without consideration, Agreements in restraint of marriage, Agreements in restraint of trade, its exceptions - sale of goodwill, section 11 restrictions, exclusive dealing agreements, restraints on employees under agreements of service, Agreements in restraint of legal proceedings - its exceptions, Uncertain agreements, Wagering agreement-its exception.

Discharge of a contract and its various modes.

By performance-conditions of valid tender, Performance of reciprocal promises, time as essence of contract, By breach-anticipatory breach and present breach, Impossibility of performance - specific grounds of frustration-application to leases, theories of frustration, effect of frustration, frustration and restitution, By period of limitation, By agreement - rescission and alteration, their effect, remission and waiver of performance, extension of time - accord and satisfaction.

Module : 4

Quasi-contracts or certain relations resembling those created by contract. Remedies in contractual relations;

Damages-kinds, remoteness of damages, ascertainment of damages, Injunction - Refund and restitution, Specific performance

Government as a Contracting Party

Constitutional provisions - government power to contract -procedural requirements.

Standard Form Contracts

Nature, advantages - unilateral character, principles of protection against the possibility of exploitation, judicial approach to such contracts, exemption clauses, clash between two standard form contracts.

Module -5

The Consumer Protection Act - 2019

Leading Cases

- Carlil v. Carbolic Smoke Ball Company (1883) I.Q.B.256.
- Bhagwan Das v. Girdhari Lal & Company. AIR 1966. S.C.543.
- Lalman Sukha v. Gauri Dutt All. IJ (1913) 409.
- Mohri Bibi v. Dharmodas Ghose (1903) I.A.172.
- Indian Medical Association v. V.P. Shantha, AIR 1996 SC 500
- J.J. Merchant v. Shrinath Chaturvedi, AIR 2002 SC 2931

Select Bibliography:

- Beatesen (ed.), Anson's Law of Contract (27th ed. 1998).
- P.S.Atiya, Introduction to the Law of Contract 1992 reprint (Clarendon Law Series).
- Shree Ram Singh – Law of Contract, Central Law Publication, Ed. 7, 2016
- Kailash Rai – Law of Contract
- R.K. Bangia – Law of Contract
- Avtar Singh, Law of Contract (2000) Eastern, Lucknow.
- G.C.Cheshire, and H.S. Fifoot and M.P. Furmston, Law of Contract (1992)
- ELBS with Butterworths M.Krishnan Nair, Law of Contracts, (1998).
- G.H. Treitel, Law of Contract, Sweet & Maxwell (1997 Reprint).
- R.K. Abichandani, (ed.), Pollock and Mulla on the Indian Contract and the Specific Relief Act (1999), Tripathi.
- Anson, Law of Contract (1998), Universal.
- Avtar Singh - Law of Contract.
- Gurbax Singh - Law of Consumer Protection.
- P. Leela Krishna - Consumer Protection & Legal Contract.
- Avtar Singh, Law of Consumer Protection.

B.A. LL.B. 5 YEAR INTEGRATED

(HONOURS COURSE FOR SESSION 2019-20)

1ST Year (Semester – II)

Paper 2.1 General English – II

GENERAL ENGLISH & COMMUNICATION SKILLS-II

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

Grammar & Usage, Adjective/Determiners, Conditionals, Prepositions Verbs with prepositions, Connectors/Conjunctions

Module : 2

Words misspelt, Words mispronounced, Précis writing

Module : 3

Comprehension-seen &Unseen, Essays-Gandhi, Montaigne, John Ruskin, Mary Shelley, Abraham Lincon-Gettysburg Address

Module : 4

Law & Literature:

- I. To kill a mockingbird-Lee hearper
- II. The merchant of Venice-Shakespeare
- III. Roses in December-M.C.Chagla (optional)
- IV. Autobiography-Martin Luther King
- V. Any novel by Dickens
- VI. Isben-A Doll's house(Movies to be scened on availability)

Module : 5

Language Lab:

- I. Extempore
- II. G.D.
- III. Parliamentary Debate
- IV. Declamation
- V. Elocution

Paper 2.2 Political Science - I

Teaching Hrs.: L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

Political Science: Meaning, Nomenclature and scope; Traditional and Contemporary Perspectives of Political Science, Behaviouralism and Post Behaviouralism, Relations of Political Science with other Social Sciences (Economics, History and Sociology)

Module : 2

State: Theories of the Origin (Divine Origin, Social Contract, Evolutionary Theory and Marxist Theory), Nature of the State - Organic theory of the State, the Concept of Welfare State, Sovereignty : Monistic and Pluralistic theories.

Module : 3

Basic Concepts: Power, Authority and Legitimacy, Rights, Liberty, Equality, Justice and Law.

Module : 4

Democracy and Dictatorship, Parliamentary and Presidential Systems, Unitary and Federal Systems. Political Parties, Pressure Groups. The Concept of Minority Representation and Proportional Representation.

Module : 5

Organs of Government and their Functions with reference to recent trends, Theory of Separation of Powers. Good Governance and Globalization.

**Paper 2.3 Economic – II
Macro – Economics**

**Teaching Hrs. : L-04
Total : 100**

**Exam Hrs. – 3
Marks : Internal 30 External 70**

Module : 1

Macroeconomics– An overview, Concept, Nature, Limitations, Significance, Static, Dynamic, Comparative.

National Income – Meaning, Flow concept, Measurement, Problems

Module : 2 Important Policies (elementary) New economic Policy

Liberalization – Concept, Impact and Extent.

Privatization – Concept, Impact, Extent and Mode.

Globalization – Concept, Impact and Extent.

Monetary Policy – Meaning, Objectives, Significance.

Fiscal Policy – Meaning, Objectives, Significance.

Module : 3 Theories of Macroeconomics

Classical Theory Income and Employment – Introductory analysis (Says Law & Wage Price Flexibility)

Keynesian Theory of Employment: An Overview.

Balance of Payment & Balance of Trade: Meaning, Current Account & Capital Account

Module : 4 Money

Nature and functions of Money.

Supply of money and types of Money.

Fishers Quantity theory of Money.

Module : 5 Banking

Commercial Banks – Meaning, Functions including Credit Creation. • Central Bank: Meaning, Function and Methods of Credit Control.

Select Bibliography:

- Jhingan M.L., Macro-Economic Theory, Vrinda Publication Ltd.
- Vaish M.C. Vaish, Macro-Economic Theory, Vikas Pub.
- Ahuja H.L., Macroeconomics- Theory and Policy, S. Chand & Company Ltd.

Paper 2.4 Sociology– II

**Teaching Hrs. : L-04
Total : 100**

**Exam Hrs. – 3
Marks : Internal 30 External 70**

Module : 1

Development of Indian Society, Development from Vedic to Post Vedic Society, Indian traditional order, Ashram and Varna, System, Sanskars, Indian Cultural Values and their importance

Module : 2 Composition of Indian Society

Rural and Urban Society, Meaning and their characteristics, Rural-Urban Linkage, Geographical determination, Social stratification and its traditional basis, Joint family : meaning, characteristics, merits and demerits, Caste: meaning, characteristic, merits and demerits and recent changes in the Caste System, Caste and class in India

Module : 3 Weaker Sections of Society in India

Schedule Caste, Minorities, Tribes: Meaning, Features, Problem and their Classification, Other Backward Class.

Module : 4 Trends of Social change in India

A Shift from Tradition to Modernity. Process of Westernization, Modernization, Globalization, Sanskritization, Liberalization, National building and Women empowerment

Module : 5

- (a) i. Customs Meaning, Importance
- ii. Modes of Acquiring Customs (Languages Symbolic Interaction)
- (b) i. Problems and Perspectives Lingusta Communities
- ii. Problems and Perspectives of Religions Communities
- iii. Role of Legislation

Paper 2.5 Legal and Constitutional History of India

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1 Early Developments (1600-1836):

Charters of the East India Company: 1600, 1661, Settlements: Surat, Madras, Bombay and Calcutta, Courts: Mayor's Court of 1726 and Supreme Court of 1774.

Module : 2

Statutes: Regulating Act, 1773, Pitts India Act, 1784, The Act of Settlement, 1781, Conflict: Raja Nand Kumar, Patna Case and Cossijurah Case, Warren Hastings: Judicial Plans of 1772, 1774 and 1780, Lord Cornwallis: Judicial Plans of 1787, 1790 and 1793, Lord William Bentinck (With special focus on Appraisal of Criminal Law)

Module : 3 Evolution of law and legal institutions:

Development of law in Presidency Towns, Development of Civil law in Mufassil: Special emphasis on justice, equity and good conscience, Codification of laws: Charter of 1833, the First Law Commission, the Charter of 1853, The Second Law Commission, Establishment of High Courts, 1861, Privy Council and Federal Court: Appeals and working of Privy Council, Evaluation: Special Reference to Racial Discrimination, Merit and Demerits

Module : 4

The Indian Councils Act, 1861 ; The Indian Councils Act, 1892 ; The Indian Councils Act, 1909 ; The Government of India Act, 1919

Module : 5

The Government of Indian Act, 1935 (Nature and characteristics under the Act, Executive Powers of Governor General, Federal Legislature, Federal Court), Indian Independence Act 1947

Select Bibliography:

- Jain,M.P: Outlines of Indian Legal History
- Keith, A.B: Constitutional History of Indian (1973), Chapters VII, VIII,X,XI and XII only.
- Banerjee,A.C: The Making of the Indian Constitution
- Jois,M.Rama: Legal History of India
- Kulshrashtha, VD: Landmarks in Indian Legal and Constitutional History.
- Jain,M.P: Bharatka Vidhi ka Itihas
- Mittal,J.K.: Bharat ka Vaidhanik avam Samvedhanik Itihas.

Paper 2.6 Law of Contract – II

(SPECIFIC CONTRACTS, SALE OF GOODS ACT, 1930, INDIAN PARTNERSHIP ACT, 1932 AND SPECIFIC RELIEF ACT, 1963)

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1 Indemnity

The concept, Need for indemnity to facilitate commercial transactions, Methods of creating indemnity obligations, Definition of Indemnity, Nature and extent of liability of the indemnifier, Commencement of liability of the indemnifier, Situations of various types of indemnity creations, Nature of indemnity clauses.

Guarantee

The concept, Definition of guarantee: as distinguished from Indemnity, Basic essentials for a valid guarantee contract, The place of consideration and the criteria for ascertaining the existence of consideration in guarantee contracts, Position of minor and validity of guarantee when minor is the principal debtor, creditor or surety, Continuing guarantee, Nature of surety's liability, Duration and termination of such liability, Position of surety in the eye of law, Various judicial interpretations to protect the surety, Co-surety and manner of sharing liabilities and rights, Extent of surety's liability, Discharge of surety's liability.

Module : 2 Bailment

Identification of bailment contracts in day today life, Manner of creation of such contracts, Definition of bailment, Kinds of bailees, Duties of Bailor and Bailee towards each other, Rights of bailor and bailee, Finder of goods as a bailee, Liability towards the true owner, Obligation to keep the goods safe, Right to dispose off the goods.

Pledge

Pledge: comparison with bailment, Commercial utility of pledge transaction, Definition of pledge transactions, Definition of pledge under the Indian contract Act, Rights of the pawner and pawnee, Pawnee's right of sale as compared to that of an ordinary bailee, Pledge by certain specified persons mentioned in the Indian Contract Act.

Module : 3 Agency

Identification of different kinds of agency transactions in day to day life in the commercial world, Kinds of agents and agencies, Distinction between agent and servant, Essentials of a agency transaction, Various methods of creation of agency, Delegation, Duties and rights of agent, Scope and extent of agent's authority, Liability of the principal of acts of the agent including misconduct and tort of the agent, Liability of the agent towards the principal, Personal liability towards the parties, 10 Methods of termination of agency contract, Liability of the principal and agent before and after such termination.

Specific relief under Specific Relief Act, 1963

Specific performance of contract, Contract that can be specifically enforced, Persons against whom specific enforcement can be ordered. Rescission and cancellation, Injunction-Temporary, Perpetual, Declaratory orders.

Module : 4 Sale of Goods

Concept of sale as a contract, Illustrative instances of sale of goods and the nature of such contracts, Essentials of contract of sale, Essential conditions in every contract of sale, Implied terms in contract of sale, The rule of caveat emptor and the exceptions thereto under the Sale of Goods Act, Effect and meaning of implied warranties in a sale, Transfer of title and passing of risk, Delivery of goods: various rules regarding delivery of goods, Unpaid seller and his rights, Remedies for breach of contract, Concept of nemo dat quad non habet with exceptions.

Module : 5 Partnership

Nature of partnership: definition, Distinct advantages and disadvantages vis-a-vis partnership and private limited company, Mutual relationship between partners, Authority of partners, Admission of partners, Outgoing of partners, Registration of Partnership, Dissolution of Partnership. Limited Liability Partnership Act, 2008.

Leading Cases:

- National Bank of India Ltd. v. Sohan Lal, AIR 1962. Punjab 534.
- Amrit Lal Gordhan Lallan v. State Bank of Travancore, AIR 1960 S.C.1432.
- Patnaik & Company v. State of Orissa, AIR 1965 S.C. 1655.
- State of Gujarat v. Maman Mohd., AIR 1967 S.C. 1885.

Select Bibliography:

- R.K. Abhichandani (ed.), Pollock and Mulla on Contracts and
- Specific Relief Acts (1999) Tripathi, Bombay.
- Avtar Singh, Contract Act (2000), Eastern, Lucknow.
- Krishnan Nair, Law of Contract, (1999) Orient

- Avtar Singh, Principles of the Law of Sale of Goods and Hire Purchase (1998), Eastern, Lucknow.
- J.P. Verma (ed.), Singh and Gupta, The Law of Partnership in India (1999), Orient Law House, New Delhi.
- A.G.Guest (ed.), Benjamin's Sale of Goods (1992), Sweet & Maxwell.
- Beatson (ed.), Ansons' Law of Contract, (1998), Oxford, London.
- Saharay, h.k., Indian Partnership and Sale of Goods Act (2000), Universal
- Ramnainga, The Sales of Goods Act (1998), Universal
- Dasai S.T. The Law of Partnership in India and Pakistan.
- Kapoor N.D. - Mercantile Law (Hindi & English).

B.A. LL.B. 5 YEAR INTEGRATED

(HONOURS COURSE FOR SESSION 2020-21)

2nd Year (Semester – III)

Paper – 3.1 Computer - I

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

Introduction to operating system; functions of OS, Types of Operating system, Booting Procedure, system files, Windows XP/2000. Windows concepts, Features, Windows structure, Desktop, Taskbar, Start menu, My Computer, Recycle Bin, Windows Accessories-Calculator, Notepad, Paint, WordPad, Character Map, Windows Explorer, Entertainment, Control panel, managing Hardware & Software- installation of Hardware and Software, System Tools, Communication.

Module : 2

Introduction to Computer: Definition, Characteristics. Capabilities and Limitations. Evaluation of Computers Classification of computers, Microcomputers, Minicomputers, Mainframes, Supercomputers, Personal computers Desktop, Laptop, Palmtop, Tablet PC, Basic Components of a Computer System-Control Module, ALU, Input/output functions and characteristics.

Memory Introduction, Classifications- Volatile Memory and Non- Volatile , Flash Memory, ROM, RAM, EPROM, PROM, EEPROM other types of memory

Module : 3

Input, Output and storage units, Computer Keyboard, Pointing Devices: Mouse, Trackball, Touch Panel, and Joystick, Light Pen, Scanners, Various types of Monitors, Touch-sensitive screens, Optical Recognition System, Pen based systems, Digitizers, MICR, OCR, OMR, Bar-code Reader, digital camera.

Hard Copy Devices: Impact and Non- Impact Printers- Daisy Wheel, Dot Matrix, Line Printer, Chain Printer, Comb Printers, Non Impact Printers- DeskJet, Laser Printer, Thermal Transfer Printer, Barcode Printers, Electro static printers and plotters.

Module : 4

High Level Language and Low Level Language, Software and its different types- System Software, Application software. Hardware , Firmware Introduction to algorithm and Flow chart: - Representation of an algorithm, flowchart symbols and levels of flow chart, rules, advantage and limitations of flowchart

Module : 5

Introduction to Networking Concepts, Types of networking (LAN, MAN AND WAN), Communication Media, Introduction to Database Management System and its uses. Introduction to internet ,advantages limitations and services, Internet Tools include: email, ftp, E-commerce ,telnet the World Wide Web, and search engines and Computer Virus.

Select Bibliography:

- Computer Fundamentals : Pradeep K. Sinha. Priti Sinha BPB Publications
- Fundamentals of Computers : V.Rajaraman ,Prentice Hall of India Private Ltd.
- PC Software : Dr. Neeraj Bhargava , Mrs. Ritu Bhargava, Mr.Ajay Singh Gaur , Mr. Rajesh Kalra , University Book House Pvt. Ltd.

Computer Lab :

Computer Lab to be used for the following: Windows, managing windows, working with M S Word, M S Excel and M S Power Point

Introduction to M S Dos:

Internal Commands MD, CD, RD, COPY CON, TYPE, DATE & TIME, ,REN, PROMPT, CLS, DIR/P/W, COPY , DEL Etc. External commands - FORMAT, DISKCOPY, DISKCOMP, XCOPY, CHKDISK, SCANDISK, HELP, DEBUG, PRINT etc.

Introduction to M S Word:

1. Working with formatted text, Menu Bar, Shortcut keys, Formatting documents: Selecting text, Copying & moving data, Formatting characters, changing cases
2. Paragraph formatting, Page formatting, Header & footer, Bullets & numbering, forming tables. Finding & replacing text, go to (F5) command,
3. Printing documents, page, break, auto text, symbol, picture & word art.
4. Spelling & grammar, word count, auto correct and mail merge

Introduction to M S Excel:

1. Spreadsheets, workbooks, creating, saving & editing a workbook
2. cell entries (numbers, labels, and formulas)
3. Adding and deleting rows and columns Filling series
4. data sort, Formatting worksheet
5. Some useful Functions in excel (SUM, AVERAGE, COUNT, MAX, MIN, IF), Cell referencing
6. Introduction to charts: types of charts, creation of chart.

Introduction to M S Power Point:

1. Presentation tips, components of slide, templates and wizards, using template, choosing an auto layout, using outlines
2. adding subheadings, editing text, using master slide, adding slides, changing background and shading, adding header and footer, adding clip arts and auto shapes
3. Working in slide sorter view (deleting, duplicating, rearranging slides)
4. adding transition and animations to slide show
5. inserting music or sound on a slide, Inserting action buttons or hyperlinks for a presentation
6. set and rehearse slide timings, viewing slide show

Paper – 3.2 History – II**MEDIEVAL INDIA AND INSTITUTIONS (1526-1656 A.D)**

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

India's political system on the eve of Babur's invasion. Nature of Babar's achievements in India. Importance of Babarnama as a source of History. Humayun's relations with his brothers and the role of Nobility. Problem of Malwa and Gujarat.

Module : 2

Mughal relations with Afghans (Shershah) and Rajputs under Babur and Humayun. Sher Shah –Sources of Study. Administration Reforms and Achievements.

Module : 3

Akbar - Sources with special reference to the works of Nizamuddin, Abul Fazal and Badauni. Relations with Nobility and Rajputs. Relations with Central Asian power, Deccan Policy.

Module : 4

Growth of Administrative machinery Central, Provincial, Revenue and Army Administration (Mansabdari system) Theory of sovereignty and growth of religious ideas & Suleh-kul.

Module : 5

Jahangir- Parties and politics at Jahangir's Court and the Nurjahan 'junta'. Growth of Administration. Shah Jahan - North-West frontier and Central Asian policy. Relations with Rajputs and Deccan problem. Source- "Tuzuk-i-Jahangiri", Iqbalnama-i-Jahangiri and Badshahnama of Quzwini and Lahori.

Select Bibliography:

- R.P.Tripathi: (i) Rise and Fall of Mughal Empire. (ii) Some Aspects of Muslim Administration in India.
- Rushbrook Williams : An Empire Builder of the Sixteenth Century.
- S.K. Bannerji : Humayun Badshah.vol I
- William Erskine : History of India. Vol. I.
- Ishwari Prasad : Life and Time of Humayun.
- K.R. Qanungo : Sher Shah and his Times.
- Harbans Mukhiya : Historians and Histrography during the reign of Akbar.
- Moreland: India at the Death of Akbar.
- Irfan Habib: The Agrarian system of the Mughal India.
- Beni Prasad : History of Jahangir B.P. Saxena: Shahjahan of Delhi.

Paper – 3.3 Political Science– II**Modern Indian Social and Political Thought Duration****Teaching Hrs. : L-04****Total : 100****Exam Hrs. – 3****Marks : Internal 30 External 70****Module : 1**

The Nature and Content: Genesis of Indian Thought and Compulsion of National Movement, Synthesis of Thought and Activation, Contact with the west and the Nature of Impact. Thought of Socio-Religious Regeneration : Socio-Religious Reform proceeding, Political Evolution, Protest and Reforms- Institutional bases. Ram Mohan Ray, Social Justice, Religion and Humanism. Dayanand: Social Equality, Integration and Justice: Nationalism and Internationalism. Modern India & Swami Vivekanand.

Module : 2

Liberal Foundations: The Vision of M.G. Ranade & G.K. Gokhale: The British connection, Loyalty and National Self Respect, Spiritualization of Politics, The issue of Purity and Primacy of Means of Protest: Modernization and Constitutionalism, Social Regeneration and National Consolidation, Secularism, Self Government. Economic Nationalism: Dadabhai Naoroji, Theory of Moral and material Drain. M.G.Ranade's Alternative, G.K. Gokhale's Views on Protection and Free Trade, Economic Regeneration and the States.

Module : 3

Militant Nationalist Foundations: B.G.Tilak's Perspectives of The British connection, Means of Protest: Resistance, Boycott Non-Cooperation, The Concept of Swaraj, National Dignity and National Reconstruction thought, National Education and Swadeshi, Social Reforms, Political Evolution, Shift in view after 1915. The Moderate Perspectives. Lajpat Rai's Perspective of Social Justice and National Integration, Nationalism, Religion, Social Reforms and Political Evolution. Denominational Response to Nationalism : Syed Ahmed Khan and M.A. Jinnah: Views on the British Rule and Muslims in India, Inadequacies of Parliamentary-democrat Process, Secularism and Nationalism, Religion, Social- Order and Political Separatism, The Two Nation Theory.

Module : 4

V.D.Savarkar's Concept of Hindutav, Bases of Integrative Nationalism: Aurobindo: Cultural Spiritual Basis of Nationalism, Militant Nationalism and Resistance: Humanism, Universalism. Rabindranath Tagore's Nationalism and Universalism. Bases of Socialism and democracy: M.N. Roy's Transition from Marxism to Radical Humanism, The New Social Order.

Module : 5

Jawaharlal Nehru: Liberal and Socialist Influences: Nationalism and World Order, Social Integration, Secularism, Nation Building, Democracy, Socialism, Planned Economic Development and Industrial Growth. B.R. Ambedkar: Social Justice and Social Integration, Nationalism, Constitutional Framework, Rule of Law and

Nation Building. M. K. Gandhi's Thought and the Legacy: Formative Influences of Thought Process. Religion and Politics, Truth, Non-Violence, Satyagraha, Non-Co-operation and Boycott, Perspective of Western Civilization, Parliamentary Democracy, Science and Technology, State and Statelessness, Bread Labour, Economics Justice and Trusteeship, Universal Humanism, Relevance of Gandhi's Alternatives; Social, Economic and Political Base, of Sarvodaya : Views of Gandhi, Vinoba and Jayaprakash Narayan; Communist Thought and Activism in India : Major Ideological Dimensions and Contribution.

Select Bibliography:

- A. Appadorai: Indian Political Thinking From Naoroji To Nehru
- K.P. Karunakaran: Continuity and Change In Indian Political
- V.P. Verma: Modern Indian Political Thought
- P.L. Nagar: Adhunik Bharatiya Samajik Avam Rajnitik Chintan
- O. P. Goyal: Studies In Modern Indian Political Thought
- A.R. Desai: Social Background of Nationalism
- V.R. Mehta: Ideology, Modernization and Politics In India
- K.D. Damodaran: Indian Thought
- Bhavani Sen Gupta: Communism In Indian Politics
- K.P. Karuakaran: Continuity and Change In Indian Politics
- Virendra Grover : Bal Gangadhar Tilak
- Shyamlal and K.S. Saxena : Ambedkar and Nation Building(Ed.)
- K.P Karunakaran : Religion and Political Awakening In India
- B.R. Purohit : Hindu Revivalism and Indian Nationalism
- Lal Bhadur : The Muslim League
- V.V.Ramana Murti : Non-Violence In Politics
- B.S.Sharma : The Political Philosophy of M.N. Roy
- D.B.Mathur : Gopal Krishan Gokhale
- Appadorai : Documents On Political Thought In Modern India
- G.N. Dhawan : Political Philosophy of Mahatma Gandhi
- K.P. Karuna Karan : Modern Indian Political Tradition
- Karan Singh : Aurobindo - The Prophet of Indian Nationalism
- M.A. Dass : The Political Philosophy of Jawahar Lal Nehru
- M.M. Buch : Rise and Growth of Indian Liberalism : Rise and Growth of militant nationalism
- Raman Murthy : Non-Violence In Politics
- Shay : The Legacy of Lokmanya
- V.R. Mehta : Foundations of Indian Political Thought
- C.F. Andrews and G. Mukherjee : Rise and Growth of The Congress In India
- S.A. Wolepert : Tilak and Gokhale

Paper 3.4 LAW OF TORTS AND MOTOR VECHICLE ACT

Teaching Hrs. : L-04

Exam Hrs. – 3

Total : 100

Marks : Internal 30 External 70

Module : 1 Evolution of Law of Torts

England- forms of action - specific remedies from case to case, India - principles of justice equity and good conscience - uncodified character, advantages and disadvantages.

Definition, Nature, Scope and Objects

A wrongful act - violation of duty imposed by law, duty which is owed to people generally (in rem), *damnum sine injuria* and *injuria sine damnum*, Tort distinguished from crime, breach of contract and Quasi Contract, The concept of unliquidated damages, Changing scope of law of torts : Objects - prescribing standards of human conduct, redressal of wrongs by payment of compensation, prescribing unlawful conduct by injunction.

Principles of Liability in Torts

Fault, Wrongful intent, negligence, Liability without fault, Violation of ethical codes, Statutory liability, Place of motive in torts.

Module : 2 Justification in Tort

Volenti non fit injuria, Necessity, private and public, Plaintiff's default, Act of God, Inevitable accident, Private defence, Statutory authority, Judicial and quasi-judicial acts, Parental and quasi-parental authority.

Extinguishment of liability in certain situations

Actio personalis moritur cum persona - exceptions, Waiver and acquiescence, Release, Accord and satisfaction, Limitation.

Standing

Who may sue-aggrieved individual - class action - social action group, Statutes granting standing to certain persons or groups, Who may not be sued?

Doctrine of sovereign immunity and its relevance in India Vicarious Liability

Basic, scope and justification, Express authorization, Ratification, Abetment, Special relationships: Master and servant - arising out of and in the course of employment - who is master? - the control test, who is servant? - borrowed servant, independent contractor and servant, distinguished - Principal and agent, Corporation and principal officer.

Absolute/Strict liability

The rule in Rylands v. Fletcher, Liability for harm caused by inherently dangerous industries.

Module : 3 Torts against persons and personal relations

Assault, battery, mayhem, False imprisonment, Defamation - libel, slander including law relating to privileges, Marital relations, domestic relations, parental relations, master and servant relations, Malicious prosecution, Shortened expectation of life, Nervous shock.

Wrongs affecting property

Trespass to land, trespass ab initio, dispossession, movable property- trespass to goods, detinue, conversion, Torts against business interests- injurious falsehood, misstatements, passing off.

Module : 4 Negligence

Basic concepts, Theories of negligence, Standards of care, duty to take care, carelessness, inadvertence, Doctrine of contributory negligence, Res ipsa loquitur and its importance in contemporary law, Liability due to negligence : different professionals, Liability of common carriers for negligence.

Nuisance

Definition, essentials and types, Acts which constitute nuisance obstructions of highway, pollution of air, water, noise, and interference with light and air.

Module : 5 Legal remedies

Legal remedies, Award of damages - simple, special, punitive, Remoteness of damage - foresee ability and directness, Injunction, Specific restriction of property, Extra-legal remedies - self help, re-entry on land, re-capture of goods, distress damage feasant and abetment of nuisance.

Motor Vehicle Act 1988 as amended up to date and rules under the Act.

Leading Cases:

- Ushaben v. Bhagya Laxmi Chitra Mandir. AIR 1970. GUJ. 18.
- Municipal Corpn. of Delhi v. Subhagwanti AIR 1966. S.C.page 1750.0
- Rylands v. Fletcher (1869) IR HT 330.
- Union Carbide Corporation v. Union of India, AIR 1992 SC248
- M.C. Mehta v. Union of India, AIR 1987 SC 965

Select Bibliography:

- Salmond and Heuston - On the Law of Torts (2000) Universal, Delhi.
- D.D. Basu, The Law of Torts (1982), Kamal, Calcutta.
- B.M. Gandhi, Law of Tort (1987), Eastern, Lucknow
- P.S. Achuthan Pillai, The law of Tort (1994) Eastern, Lucknow.
- Ratanlal & Dhirajlal, The Law of Torts (1997), Universal, Delhi.
- Jai Narayan Pandey- Law of Torts

- R.K. Bangia- Law of Torts
- N.M. Shukla- Law of Torts
- A.K. Dixit Law of Torts & Consumer Protection

Paper 3.5 PUBLIC INTERNATIONAL LAW-I

Teaching Hrs. : L-04
Total : 100

Exam Hrs. – 3
Marks : Internal 30 External 70

Module : 1

Definition, Historical developments, Nature and Basis of International Law, Weaknesses of International Law.

Module : 2

Relation between International Law and State Law, States Kinds of States and Non-State entities, Acquisition and loss of State Territory

Module : 3

Territorial water, Continental Shelf, Continuous zone and exclusive economic zone, Diplomatic agents, Classification and Functions of diplomatic agents, Privileges and Immunities of diplomatic agents with reference to Vienna Convention on Diplomatic Relation, 1961.

Module : 4

Treaties : Definition, Basis, classification and formation of treaties. Interpretation and revision of treaties, principles of jus cogens and pacta sunt servanda, termination of treaties. Vienna Convention on the Law of Treaties. Pacific and compulsive means of settlement of international disputes.

Module : 5

War: Its legal character and effects, Enemy character, Armed conflicts and other hostile relations, belligerent Occupation, War Crimes, termination of war and doctrine of postliminium, Prize courts, Genocide

Leading Cases:

- United Kingdom v. Norway (Anglo Norwegian fisheries case) ICJ Report 1951 p. 116
- The Nuremberg judgment, International Military Tribunal, Nuremberg 1946 AJIL Vol. 41, 1947 p. 172
- In Re Government of India and Mubarak Ali Ahmad 1952 1 II Er 2060
- Khutch Tribunal award case- foreign affairs report volume XVII March 68.
- Right to passage over Indian territory case ICJ Report 1957 p. 125

Select Bibliography:

- Stark- An introduction to International Law
- Oppenheim- International Law Vol. I and II
- Antonio Cassese- International Law
- Breirly- The Law of Nations
- Nartin Dixon- Textbook on International Law
- Dr. H.O. Agarwal- International Law and Human Rights
- S.K. Kapoor- International Law, Human Rights

Paper 3.6 Labour and Industrial Law-I

Teaching Hrs. : L-04
Total : 100

Exam Hrs. – 3
Marks : Internal 30 External 70

Module : 1

Historical perspective of labour:

- (i) Labour through the ages: slave Labour- guild system division on caste basis labour during feudal days.
- (ii) Labour Capital Conflicts: Exploitation & Labour profit motive, poor bargaining power, poor working condition, unorganized labour bonded labour, surplus, labour division of labour.

(iii) Transition from exploitation to protection and from status to contract.

Module : 2

Industrial Dispute Act- Scope and Object definitions, assistance to bipartite settlement, work committee, conciliation officer, authorities for saving disputes, reference power. Provision Relating to Lay-off,

Module : 3 Trade Unionism:

Trade Union Freedoms: International perspective, The history of trade union movement in India, Right to trade union as part of human right, freedom of association- international norms and the Indian constitution The Trade Union Act, 1926: definitions, registration of trade union, functions of registrar, cancellation of registration and incorporation of registered trade unions. Funds- political and general, rights and liabilities of registered trade union, immunities, office bearers, change of name, amalgamation and dissolution of trade union, penalties.

Module : 4

Complete Factories Act, 1948- Definitions, inspectors, provisions regarding health, safety, welfare, provision relating to employment of young person, women workers, Annual leave with wages & Penalties.

Module : 5

Protection of the Weaker Sections of Labour- Tribal labour: need for regulation, unorganized labour like domestic servants- problems and perspectives, bonded labour, (Regulation & Abolition Act, 1970), Child Labour Prohibition Act, 1986

Leading Cases:

- Workmen of Indian Standard Institutions v. Indian Standard Institution AIR 1976 SC 145.
- Burmah Shell Co v. Burmah Shell Management Staff Association 1970 I FLL J. 590 SC, AIR 1971 SC 922.
- Workmen of Firestone Tyre and Rubber Co. Ltd. v. The Management of Firestone Tyre and Rubber Co. Ltd. AIR 1972 SC 1227.
- Delhi Cloth and General Mills Co Ltd v. Ludh Budh Singh AIR 1972 SC 1031
- Jay Engineering Works v. State of West Bengal, AIR 1990 Cal 406
- Bidi Leaves and Tobacco Merchants Association India and other v. State of Bombay AIR 1962 SC 486
- Bangalore Water Supply v. A. Rajappa AIR 1978 SC 548
- Express Newspapers Ltd v. Union of India AIR 1958 SC 578

Select Bibliography:

- O.P. Malhotra: Law of Industrial Disputes
- S.C. Srivastava: Social Security and labour laws
- V.V. Giri: Labour problems in Indian industry
- R.C. Saxena: Labour problems and social welfare
- S.N. Mishra: Labour and Industrial Laws
- Anil Sachdeva: Industrial and Labour Laws
- K.N. Pillai: Labour and Industrial Laws
- Ganga Sahai Sharma: Shram Vidhi
- N.D. Sharma : Shram Vidhi
- Gopi Krishan Arora : Shram Vidhi

B.A. LL.B. 5 YEAR INTEGRATED

(HONOURS COURSE FOR SESSION 2020-21)

2nd Year (Semester – IV)

Paper 4.1 Computer – II

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1 Database Management System

Data, Data Processing, Merits and demerits of file organisation. Database Overview, Purpose of the Database system, File systems Vs. Database Systems, View of Data: Data Abstraction, Instances, Schema, Data Models: Overview of Network, Hierarchical, and Relational Model, Database Architecture and Administrators, Codd's Rules.

Module : 2

ER Model: Basic Terminology, Entity, Entity sets, attributes and keys, Relation and Relationship sets, Entity-Relationship Diagram, Weak and Strong entity types, Features of E-R Model, Specialization, Generalization Aggregation, Creating table from ER diagram. Basic Concept of Normalization up to BCNF.

Module : 3

Implement Database concepts using Access, Creating Tables, Data Types, Entering Data, Table Design, Indexing, Importing Data, Operators and expressions, expression builder, various functions of Access, Import and Export Table, Creating Queries, Setting Relationship between Tables, Creating Forms, Controls and components of form, Master table and transaction table. Join property, various join options available in access, Creating & Printing Reports.

Module : 4

Query Languages: DDL, DML, DCL, Introduction to SQL, Data Types, Basic SQL commands like Create, Alter, Drop, Truncate, Insert, Update, Delete etc, Basic SQL Queries, Union, Intersect and Except, Nested Queries.

Module : 5

Transaction management and Concurrency control, Transaction management: ACID properties, serializability and concurrency control, Lock based concurrency control (2PL, Deadlocks), Time stamping methods, optimistic methods, database recovery management.

Select Bibliography:

- Database Management System By A. Silberschatz, Henry F.Korth, S. Sudershan (McGraw- Hill)
- An Introduction to Database System By C.J. Date (Addison Wesley)
- Fundamentals of DBMS By Gupta, Dhillon, Magho, Sharma (Lakhanpal Publishers)
- Teach yourself Access. Sieglel, BPB
- Introduction to Computer Data Processing and System Analysis By V K Kapoor (Sultan Chand and Sons)

Paper 4.2 History – III
MODERN INDIAN HISTORY (1740-1956A.D.)

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

Political and Economic Condition of India at the advent of Europeans; British Expansion in Bengal - Battle of Plassey and Buxer; Administrative changes during 1772-73 AD; Emergence of Regional powers - Mysore, Punjab and Awadh : their struggle with British and annexation in the British Empire in the British Empire.

Module : 2

Third Battle of Panipat and its consequences; Marathas under Mahadaji Sindhia and Nana Phadnavis; Maratha struggle with British Power; Causes of the failure of the Marathas.

Module : 3

Uprising of 1857 : Causes, Nature, Failure and Consequences; Growth of British paramountcy in the Princely states-1858-1947 A.D. Main features of Permanent settlement, Raiyyatwari and Mahalwari revenue settlements and their impact on Peasantry; Growth of English Education and Press.

Module : 4

Economic Impact of British Rule; Drain of wealth and its consequences; Causes of the emergence of Indian Nationalism : Role of Moderates and Extremists; Salient features of Government of India Act of 1919 and 1935 A.D.

Module : 5

India's struggle for Freedom from 1920 to 1947 A.D.; Growth of Communal Politics; Factors Leading to Partition of India; Main features of the Indian Constitution of 1950 A.D.: Problems and Process of the Integration of Princely States into Indian Union (1947-49 A.D.); Reorganization of Indian states in 1956 A.D.

Select Bibliography:

- Bisheswar Prasad: Bondage and freedom.

- G.S.Sardesai : New History of the Marathas.Vol.III (also in Hindi)
- Sumit Sarkar : Modern Indian 1885 to 1947.
- Bipin Chandra: Modern India.
- A.R. Desai: Social Background of Indian Nationalism.
- B.N. Pandey (ed.): Centenary History of the Indian National Congress (1885-1985) Vikas Publishing House. New Delhi 1985.
- Tara Chand : History of freedom Movement in India, 4 vols Publication Division, New Delhi.
- M.S.Jain : Adhunik Bharat ka Itihas (Hindi)
- Bipin Chandra : Bharat ka Swatantrata Sangram (Hindi)
- B.N. Lunia : Adhunik Bharat ka Rajnitik Awam Sanskritik Itihas (Hindi)
- S.N. Paul : Growth of English Press in India.

**Paper 4.3 Political Science III
(State Politics in India)**

**Teaching Hrs. : L-04
Total : 100**

**Exam Hrs. – 3
Marks : Internal 30 External 70**

Module : 1

Background : Trends in the growth of Nationalism and Democracy in British India and Princely states; integration of Princely States and Emergence of Modern Rajasthan, Princes in Rajasthan Politics; Linguistic States Structure - Organization and aftermath.

Module : 2

Constitutional Framework, Governance of States: office of the Governor- Mode of Appointment, Powers and functions; Role of Governor in State politics and Constitutional position. The office of the Chief minister- powers and functions and emerging role in state politics, The Council of Ministers in State Politics; The State legislature- Its organization, functions and emerging role in State Politics.

Module : 3

Defections and State politics in India with special reference to the study of the Politics of defections in Haryana, Rajasthan and Bihar. Coalition Politics in the Indian States with reference to the study of the working of coalition government in Kerala, West Bengal and Uttar Pradesh. Role of regional political parties in India with reference to the study of the Akali Dal, the Telugu Desham and AIADMK.

Module : 4

Political Parties and general elections: The pattern of party alliances : gains and short fall in general elections; Political Parties in Rajasthan; Electoral politics and Political Developments in Rajasthan. Role of Opposition in Rajasthan Vidhan Sabha; Pattern of leadership in States.

Module : 5

Determinants of State Politics; Major Pressure Groups in India with special reference to Trade Unions and Chambers of Commerce; Public Opinion in India; Role of Caste, Region and language in State Politics.

Select Bibliography:

- B. L. Pangariya : State Politics In India
- Hardgrave : The Dravidian Movement
- I.N. Tewari : State Politics In India
- Iqbal Narain (Ed) : State Politics In India
- K.L. Kamal : Spotlight on Rajasthan Politics
- Myron Weiner (Ed) : State Politics In India
- Myron Weiner and John Os Good Field (Eds) : Electoral Politics In The Indian States
- Paul Brass : Functional Politics In An Indian State
- Paul Wallace and Surendra Chopra (Ed) : Political Dynamics of Punjab (4 Vol)
- Richard Sission : The Congress Party In Rajasthan : Political Integration and Institution Building In An Indian State
- Subhas Kashyap : The Politics of Defection : A Study of State Politics In India
- Sudha Pai : State Politics - New Dimensions

- V.P.Menon : The Story of Integration of Indian States
- H.M.Jain : State Governments
- A.R.Desai : Social Background of Indian Nationalism
- C.H.Philips (Ed) : Politics and Society In India
- Ramkrishan Nair : How The Communists Came To Power In Kerala
- M.A.Jhangian : Jana Sangh and Swatantra
- E.M.S.Nambodripad : The National Question In Kerala
- L.P.Sinha : The Left In India

Paper 4.4 ENVIRONMENTAL LAW

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

Concept of Environment and Pollution - Meaning and contents of environment, Meaning and contents of pollution, Kinds of pollution, Effects of pollution **Legal Control : Historical Perspective** - Indian tradition : Dharma of environment, British Raj - Industrial development and exploitation of nature Nuisance - Penal code and procedural codes Environmental Concerns in Modern India.

Module : 2

Constitutional Protection to environment - Constitution making - development and property oriented approach Fundamental Rights and Environment - Rights to clean and healthy environment, environment V/s development. Directive principles of state policy and environment Fundamental Duties and environment . Other provisions of the constitution relevant to environment Emerging Principles - polluter pays, precautionary principle, public trust doctrine, sustainable development. Public Interest Litigation Judicial, Activism Pertaining to Environmental Pollution.

Module : 3

The Water (Prevention and Control of Pollution) Act, 1974: Application of the Act, Definitions Constitution of central, state and joint boards Powers and functions of the Board, Qualification and disqualification of the members Prevention and control of water pollution and procedure thereof , Funds, account and audit Penalties

The Air (Prevention and Control of pollution) Act, 1981: Application of the Act, Definitions Constitutions of central, State and joint boards Powers and functions of the Board, Qualifications and disqualifications of the members Prevention and control of Air pollution and procedure thereof, Funds, account and audit Penalties.

Module : 4

Environment Protection Act, 1986: Application of the Act, Definitions, General Powers of the central government including the powers to give directions Prevention and control of environmental pollutions and procedure thereof Penalties.

Noise Pollution: Meaning of Noise pollution, Sources of Noise pollution, Effects of Noise pollution, Legal Control.

Module : 5 Forests and wild life protection

The Indian Forests Act, 1927: Salient features of the Act, Applicability, Power to reserve forests, power to declare forests land, powers and functions of forest settlement officer, protected forests, penalties and contraventions.

The Forest (conservation) Act, 1980: Objectives, application and salient features of the Act, definitions, Restrictions on the de-reservation of forests, advisory committee, offences and penalties.

Wild life (Protection) Act, 1972: Objectives, applicability and salient features of the Act, Authorities, Duties of wild life Advisory Board, Hunting of wild animals, sanctuaries, National Park, Closed areas, central Zoo authority, Trade or commerce in wild animals, Animal articles and trophies, Prevention and detection of offences, penalties.

International Regime UN declaration on right to development, Stockholm, Rio etc. conferences. Green House effect and Ozone depletion Bio-diversity.

Leading Cases:

- M.C. Mehta v. Union of India, AIR 1987 SC 965

- M.C. Mehta v. Union of India, AIR 1988 SC 1115
- Vellore citizen's welfare forum v. Union of India, AIR 1996 SC 2715
- Tarun Bharat Sangh, Alwar v. Union of India, AIR 1992 SC 514
- A.P. Pollution control Board (II) v. Prof. M.V. Nayudu, (2001) 2 SCC 62.

Select Bibliography

- Aarmin Rosencraz, Environmental Law and policy in India, Oxford.
- R.B. Singh & Suresh Mishra, Environmental Law in India, Concept Publishing Co., New Delhi.
- Kailash Thakur, Environmental Protection Law and policy in India, Deep & Deep publications, New Delhi.
- Leela Krishan, P, Law and Environment, Eastern, Lucknow
- S.C. Shastri, Environmental Law, Eastern, Lucknow
- S. Shantha Kumar, Introduction to Environmental Law, Wadhwa, Nagpur

Paper 4.5 Public International Law – II

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

Sources of International Law, Subjects of International Law, Place of individual in International Law

Module : 2

Nationality, Extradition and Asylum

Module : 3

Recognition of States and Governments, Recognition of Insurgency and belligerency, de facto and de jure recognition, State succession, state Jurisdiction, state Responsibility, Intervention

Module : 4

International Institution : League of Nations, United Nations. History and formation of United Nations, Organs of United Nations with specific reference to General Assembly, Security Council and International Court of Justice, New International Economic, Order Secretariat, International Criminal Court.

Module : 5

The law of Neutrality-Basis of neutrality, Rights and duties of neutral state and belligerent States. Quasi neutrality and U.N. Charter. Right of Angary, Contraband, Blockade, unneutral Service, Right of Visit and Search, Disarmament

Select Bibliography:

- Stark J.G.: An introduction to International Law
- Oppenheim: International Law Vol. I and II
- Grotious : Modern International Law
- Breirly: The Law of Nations
- Nartin Dixon: Textbook on International Law
- Dr. H.O. Agarwal: International Law and Human Rights
- S.K. Kapoor: International Law, Human Rights (English and Hindi)
- Gaur, Atula, Protection & Implementation of International Human Rights in Domestic Law serials, Publication New Delhi.

Paper 4.6 Labour & Industrial Law – II

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

State regulation of industrial relations: The Industrial Dispute Act, 1947: Strike and Lockout, Lay off and retrenchment, special provision relation of layoff, public utility services. Retrenchment and Closure transfer of undertakings, penalties', Change in condition of service during pendency of dispute, unfair labour practices

Module : 2

Workmen's Compensation Act, 1923: Historical perspective, Constitutionality of the Act; Definitions, Compensation for workmen; commissions: Appointment, function and power; Jurisdiction of civil court, Registration of agreement; Appeals and Power of State Government to make rules.

Module : 3

Employee' State Insurance Act, 1948 Preliminary, definitions, corporation, standing committee and Medical benefit council; Employee State Insurance fund and purpose for which expenses can be incurred from the fund. Contribution Inspection function and duties; Recovery of contribution; Benefits Adjudication of disputes and claims; penalties; Miscellaneous provision.

Module : 4

Payment of Gratuity Act, 1972 Definition; payment of gratuity, forfeiture of gratuity, determination of the amount of gratuity, nomination, rights of the nominees; recovery of gratuity, appointment of inspectors and their powers; penalties, cognizance of offence; protection of action taken in good faith; protection of gratuity. Maternity Benefit Act, 1961 Definition, Maternity benefits; Right, obligations, Inspectors : appointment, power,, duties, penalties and Miscellaneous provision.

Module : 5

Remuneration for labour: Theories of wages, concept of wages, components of wages, disparity in wages. The Minimum Wages Act, 1948: objects, definitions, fixation of minimum rates of wages, inspectors, payment of minimum rates of wages, overtime claims. Payment of Wages Act, 1936

Leading Cases:

- Workmen of Indian Standard Institutions v. Indian Standard Institution AIR 1976 SC 145.
- Burmah Shell Co v. Burmah Shell Management Staff Association 1970 I FLL J. 590 SC, AIR 1971 SC 922.
- Workmen of firestone Tyre and Rubber Co. Ltd. v. The Management of Firestone Tyre and Rubber Co. Ltd. AIR 1972 SC 1227.
- Delhi Cloth and General Mills Co Ltd v. Ludh Budh Singh AIR 1972 SC 1031
- Jay Engineering Works v. State of West Bengal, AIR 1990 Cal 406
- Bidi Leaves and Tobacco Merchants Association India and other v. State of Bombay AIR 1962 SC 486
- Bangalore Water Supply v. A. Rajappa AIR 1978 SC 548
- Express Newspapers Ltd v. Union of India AIR 1958 SC 578

Select Bibliography:

- O.P. Malhotra: Law of Industrial Disputes
- S.C. Srivastava: Social Security and labour laws
- V.V. Giri: Labour problems in Indian industry
- R.C. Saxena: Labour problems and social welfare
- S.N. Mishra: Labour and Industrial Laws
- Anil Sachdeva: Industrial and Labour Laws
- K.N. Pillai: Labour and Industrial Laws
- Ganga Sahai Sharma: Shram Vidhi
- N.D. Sharma : Shram Vidhi
- Gopi Krishan Arora : Shram Vidhi

B.A. LL.B. 5 YEAR INTEGRATED

(HONOURS COURSE FOR SESSION 2021-22)

3rd Year (Semester –V)

Paper – 5.1 Sociology - III

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1 Social Research and Social Survey

Social Research and Social Survey- Meaning, Nature, Stages and types.

Module : 2

Data, Forms and Sources. Hypothesis, Concept, type and Sources.

Module : 3

Sampling - Concept, type , importance and limitations. Case Study Method.

Module : 4

Techniques of Data Collection: Observation, Interview, Schedule & Questionnaire. Questionnaire Construction Unit V Tabular presentation of Data, Bivariate and Multivariate. Average : Mean, Mode, Medium.

Select Bibliography:

- Elehance D.N.: Principles of Statistics (Hindi & English Ed.)
- Goode & Hatt: Methods in Social Research.
- Jahoda & Others: Research Method in Social Relation.
- Moser, C.A.: Survey Method in Social Investigation (English & Hindi Ed.)
- P.V. Young. : Scientific Social Survey and Research (English & Hindi Ed.)

Paper 5.2 Communication Skills in English

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

Principles of Communication: Types of communication, personal space, Gesture and posture, Facial expression, language affecting behaviour, personal qualities. Nonverbal communication. Listening skills, Requisites of an effective Letter. Use of words, phrases, clauses and balanced sentences.

Business Letters: Formal and style; the heading, the data line Inside address, attention line, the opening, salutation, the body, the subject line, the message, the complementary closing signature, reference, initials, enclosure, notation, post script, spacing, continuation, page-punctuation style.

Module : 2

Kinds of Business letters, planning the letter characteristics. Brevity, Completeness, tact and courtesy, routine request, requesting appointments, letters, responses to letters with sales potentials, refusal letters, claim letters, collection letters, mild and strong appeals.

Module : 3

Sales letters, public relations, memos and other form of messages, informal and analytical reports, agenda and minutes of meetings, preparing classified advertisement, direct mail advertising, press release.

Module : 4

Spoken communication: Telephone Techniques, interview applying for employment, grievances, handling complaints from customers, answering enquiries, preparation for giving talk information technology and the future uses of word processor telex and FAX.

Module : 5

Letters for handling complex business situations e.g. transported goods held up at a check-post, conflicting views about taxability of the goods, asking extension of time for repayment of loan installment, asking an increase in the OD, limit sanctioned by the bank, replying to industrial customer who received goods not ordered for etc. (Assignments to be given on case situations), Management Communication, Time Management.

**Paper 5.3 PROPERTY LAW INCLUDING
TRANSFER OF PROPERTY ACT AND EASEMENT ACT**

Teaching Hrs.: L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

Jurisprudential control of property: Concept, meaning and kinds of property: Movable and immovable, tangible and intangible property. Intellectual property: Definition and Concept.

Preliminary: Definition, Essentials of Transfer, Competence of parties, subject matter of transfer, transfer to unborn child, registration of transfer, etc.

General Rules of Transfer: (a) Restraints of alienation absolute or partial, Restraints of free enjoyment, Covenants affecting enjoyment, divesting on insolvency, perpetuities, Future estates, Doctrine of acceleration. Accumulation of income, exceptions, Covenants and Transfer. General Rules of Transfer

(b) Conditional transfer : Condition precedent, condition subsequent; vested and contingent interest.

Module : 2

Election, Priority of rights, Notice, Implied transfers by limited owners, transfer of property out of which maintenance claims have to be met, ownership by holding out, ownership by estoppels, feeding the grant by estoppels. Doctrine of Part performance (Ss. 35-53 A) Sale of immovable property (Ss. 54 to 57).

Module : 3

Mortgage and Charge : Kinds of mortgage, Rights and liabilities of Mortgagor and mortgagee, Priority, marshalling, contribution and subrogation.

Module : 4

Exchange, Lease, Gift, Actionable Claims.

Module : 5

Easements : Indian Easements Act, 1882, Nature, Characteristics, Creation. Essentials of Easements, Imposition, Acquisition, Incidents, Disturbance, Extinction, Suspension and Revival of Easement, Riparian Rights, License, Difference between lease and license.

Leading cases:

- Smt. Shanta Bai v. State of Bombay & Others, AIR 1958 SC 532
- Rajender v. Santa Singh, AIR 1973 SC 2537
- Kreglinger v. New Patagonia Meat and Cold Storage Comp. Ltd (1914) AC 25
- Union of India Vs Sharda Mills Ltd, AIR 1973 SC 281
- Nathu Lal v Phool Chand, AIR 1970 SC 546
- Jumma Masjid v. Deviah AIR 1962 SC 847

Select Bibliography:

- Mulla: Transfer of Property Act
- S. Shah: Lectures on Transfer of Property
- Vepa P Sarathi: Law of Transfer of Property
- I.C. Saxena: Transfer of Property
- B.B. Mitra: Transfer of Property
- S.R. Bhansali and Sharma: Sampathi Antaran Adhiniyam
- J.N. Kulshrestha: Sampathi Antaran Adhiniyam
- S.N. Shukla: Sampathi Antaran Adhiniyam
- G.P. Tripathi: Sampathi Antaran Adhiniyam
- Dr. R.R. Gupta: Sampathi Antaran Adhiniyam and Sukhadhikar

Paper 5.4 COMPANY LAW

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

General Introduction:- Theories of corporate personality, creation and extinction of corporations. Corporations, partnerships and other associations of persons, state corporations, government companies, small scale; cooperative, corporate and joint sectors. Holding and subsidiary companies. Public and private company.

Law relating to Public and Private Companies: Companies Act 2013 Need of company for development, Kinds of Company, formation, registration and incorporation of a company.

Module : 2

Memorandum of association- various clauses, alteration there in- doctrine of ultra vires

Articles of association- binding force- alteration- its relation with memorandum of association-doctrine of constructive notice and indoor management and exceptions. Promoters-position-duties and liabilities.

Module : 3

Prospectus- issue, contents, liability for misstatements, statement in lieu of prospectus

Shares- general principles of allotment, statutory restrictions, share certificate- its objects and effects, transfer of shares, procedure for transfer, issue of shares at premium and discount, depository receipts- dematerialized shares (DEMAT). Calls on shares, forfeiture and surrender of shares; lien on shares

Share capital- kinds, alteration and reduction of share capital, further issue of capital, conversion of loans and debentures into capital.

Borrowing powers- charges, mortgages, contract by companies, debenture- meaning, kinds and remedies available to debenture holders.

Module : 4

Directors- position, appointment, qualification, vacation of office, removal, resignation, powers and duties of directors. Managing directors and other managerial personnel.

Meetings: kinds, procedure and voting.

Audit and accounts.

Dividends: payment, capitalization and profit.

Protection of minority rights.

Protection of oppression and mismanagement: who can apply? Powers of the court, company and the central government. Investigation of company affairs.

Reconstruction and amalgamation of company

Module : 5

Winding up of Company : Winding up-types: By court-grounds-who can apply? Procedure-powers of liquidator-powers of court, consequences of winding up. Voluntary winding up by members and creditors, winding up subject to supervision of courts, payment of liabilities, winding up of unregistered company.

Corporate liability:

(i) Legal liability of companies- civil and criminal

(ii) Remedies against them civil, criminal and tortious- specific relief Act, writs.

Leading Cases:

- Aron Soloman v. Soloman and Co. (1897) AC 22
- Royal British Bank v. Turkund (1856) 119 ER 886
- Bell House Ltd v. City Wall Properties Ltd (1966) SC 2 QB 656
- Bajaj Auto Ltd v. N.K. Farodia & Others, AIR 1971 SC 321
- Tata Engg and Locomotive Co Ltd v. State of Bihar AIR 1965 SC 40
- Seth Mohan Lal v. Grain Chambers Ltd AIR 1968 SC 772
- Vasudev Ram Chandra Shelat v. Pranalal Jaya Nand Thakur AIR 1974 SC 1728
- Shanti Prasad Jain v. Kalinga Tubes Ltd AIR 1965 SC 1535

Select Bibliography:

- Atiya: The companies act, 1956
- Avtar Singh: Company law (English and Hindi)
- L.C.B. Gower: Principles of Modern Company Law
- A. Ramaiya: Guide to the Companies Act
- R.R. Pennigton: Company Law
- S.M. Shah: Lectures on Company Law
- N.V. Paranjape- Company Law (amended upto date)

Paper 5.5 Constitutional Law – I

Teaching Hrs.: L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

Introductory: Making of Indian Constitution., Short Title, commencement of the constitution, authoritative text in the Hindi language, Nature and special features of the Indian Constitution. Challenges to Indian Federalism, Preamble, The Union & its territory Citizenship and state

Fundamental Rights: Concept of Fundamental Rights. Constitutional provisions relating to Fundamental rights. Articles 12 to 35

Module : 2

The Union Executive The President Election, qualifications, salary and impeachment, Power: Legislative, Executive and dictionary power Constitutional provision. and Vice-President of India, Council of Ministers. Prime Minister- Cabinet system- Collective responsibility, Coalition Government.

The Union Legislature Lok Sabha, Rajya Sabha, Legislative process privileges of the parliament & state legislature, legislative privileges and fundamental rights.

Module : 3

Judiciary under the Indian Constitution : Judicial independence The Union and State Judiciary - The Supreme Court and High Courts. Subordinate Judiciary Judges: appointment, Removal transfer and condition of services. Judicial review – nature and scope.

Module : 4

Services under the constitution - Doctrine of Pleasure (Article 310), Protection against arbitrary dismissal, removal or reduction in rank (Article 311) and exceptions to Article 311., Public Service Commission of the Union and the states.

Module : 5

Emergency Meaning and scope., National, State and Financial emergency. Proclamation of Emergency-conditions, effect of emergency on centre - state relations. Emergency and suspension of fundamental rights.

Leading cases:

- Keshvanand Bharti v. State of Kerala, AIR 1973 S.C.1461
- Maneka Gandhi v. Union of India, AIR 1978 S.C. 597.
- Indra Sawhney v. Union of India, AIR 1993, S.C. 477.
- S.R.Bommai v. Union of India, AIR 1994, S.C. 1918.
- Vishaka v. State of Rajasthan, AIR 1997, S.C. 3014.
- Minerva Mils Ltd. v. Union of India, AIR 1978 SC 1789

Select Bibliography:

- D.D. Basu, Introduction of the constitution of India, Prentice Hall of India, Delhi.
- H.M.Seervai, Constitution of India, Vol.1-3, Tripathi, Bombay.
- V.N.Shukla, Constitutional law of India, Oxford.
- G.Austin, Indian Constitution : Cornerstone of a Nation.
- M.P. Jain, Indian Constitutional Law, Wadhwa and Company, Nagpur.
- Kagzi, The Constitution of India, India Law House, N.Delhi.
- J.N.Pandey- Constitution of India (English)

**Paper 5.6 PROFESSIONAL ETHICS, LAWYER'S ACCOUNTABILITY
AND BAR - BENCH RELATIONS.**

Teaching Hrs.: L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

Basic Postulates of Administration of Justice: Image of justice. Wheels of the chariot of justice. Bench-Judges in the image of justice. Bar-Act, Plead and Dress of Advocate.

Historical Evolution of Legal Profession: Legal Profession in Ancient India. Position of Legal Profession in Muslim Regime. Legal Profession during the British Regime.

Autonomy of Legal Profession Indian Bar Committee, 1923 , Indian Bar Council Act, 1926 , All India Bar Committee, 1951, Unified Bar - The necessity of time., 14th Report of the Law Commission., Advocates Act, 1961., Provisions which strengthen Unified Bar., Organization of Bar on All India Basis, Constitution of Bar Council and Elections., Admission and Disciplinary action., Regulation of Legal Education.

Image/Position of Legal Profession in Society: Advocacy is a profession not a business., Legal profession is a noble profession., Deterioration in Image of Legal Profession in Independent India. Role of Lawyers in Society.

Module : 2

The necessity of the Professional Ethics: The Art of Advocacy, Professional Ethics. Nature of Professional Ethics and the problems of the code of Ethics. Advantages of having codified professional ethics. Professional Ethics - Rules of Conducts.

Bar-Bench Relationship: General Conception., Advocates duty to the Court., Duty of Judge towards the Advocate. , Duty of the Bar towards the Bench. Grounds of disputes in Bar-Bench Relations. Suggestions to improve Bar-Bench Relations.

Module : 3

Relationship between an Advocate and his client: Code of conduct, Lawyersclient Relationship. Do's and Don'ts for advocate towards client.

Accountability of lawyers.

Professional Ethics and Advocates Duties to colleagues and others

Advocates duty to colleagues, Advocates duty to opponents. Advocates duty towards witnesses. Advocates duty to public. Illustrations of other misconduct. Disciplinary committee's approach in case of professional or other Misconduct.

Module : 4 Contempt of Court Act 1971

Purpose and meaning of contempt of court., Contempt of Court by Judge, lawyers and state., Contempt by Judge, Magistrate or other persons acting judicially. Contempt of Court by Advocates. Contempt of Court by State, Corporate bodies and their officers.

Module : 5

Punishment: Nature and Extent. Power of Superior Courts in Contempt cases. Safeguards available in contempt cases.

Authorities and Procedures to deal with professional , misconduct and remedies against their order.

State Bar Council and its disciplinary committee.

The Bar Council of India and its disciplinary committee.

Remedies against the order of punishment.

Quantum of punishment.

Leading Cases:

- In Re Vinay Chandra Mishra.
- Hikmat Ali Khan v. Ishwar Prasad Arya & others 1997,3SCC 1608
- P.D. Gupta v. Ram Murti and another. 7 S.C.C. 147 AIR 1998 S.C.283.
- D.S. Dalal v. State Bank of India and others. AIR 1993 S.C. 1608.
- Delhi Judicial Services Association, Tis Hazari Court v. State of Gujrat, AIR 1991 S.C. 2176.

Select Bibliography

- The Bar Council Code of Ethics.
- The contempt of Court Act.
- Dr.Anirudh Prasad, Principles of the Ethics of Legal Profession in India.
- Mamta Rao, Professional Ethics.
- Raju Ramachandran, Professional Ethics : Changing profession, changing ethics, Butter worths, New Delhi.
- Dr. Murlidhar Chaturvedi- Professional Ethics, Accountabiligy of Lawyers and bench

B.A. LL.B. 5 YEAR INTEGRATED

(HONOURS COURSE FOR SESSION 2021-22)

3rd Year (Semester –VI)

Paper 6.1 Economic-III

MONEY, BANKING AND PUBLIC FINANCE

Teaching Hrs.: L-04

Exam Hrs. – 3

Total : 100

Marks : Internal 30 External 70

Module : 1

Value of Money and Inflation Money-concept and Importance, quantity theory of money, cash transaction and cash balance approaches; The Keynesian approach, Inflation, deflation and reflection, definition, types. causes and effects of inflation on different sectors of the economy; Demand pull and cost-push inflation; Measures to control inflation, Philips curve, Determinants of money supply - High powered money and money multiplier.

Module : 2

Commercial Banking Meaning types and Functions of commercial banks. The process of credit Creation. Evolution of commercial banking in India after independence. Recent reform in banking sector.

Module : 3

Central Banking Functions of a central bank; quantitative and qualitative methods of credit Control-Bank rate policy, Open market operations, Variable reserve ratio and Selective methods, Role and functions of the Reserve Bank of India. Objectives and limitations of monetary policy with special reference to India.

Module : 4

Nature and Scope of Public Finance Meaning and scope of public finance; Distinction between private and public finance; Public goods; The principle of maximum social advantage; Public Expenditure- Meaning, classification and principle of public expenditure; Canons and effects of public expenditure.

Module : 5

Taxation and Public Debt Sources of public revenue; Taxation, canons and classification of taxes; Impact and incidence and shifting of taxes; Taxable capacity; Effects of taxation; Characteristics of a good tax system. Sources of public borrowing; Effects of public debt. Various concepts of budget deficits.

Select Bibliography:

- Ackley, G. (1978), Macroeconomics: Theory and Policy, Macmillan Publishing Co., New York.
- Gupta, S.B. (1994), Monetary Economics, S. Chand & Co., New Delhi.
- Musgrave, R.A. and P.B. Musgrave (1976), Public Finance in Theory and Practice, McGraw Hill, Kogakusha, Tokyo.
- Shapiro, E. (1996), Macroeconomic Analysis, Galgotia Publications, New Delhi.
- S. Ganguly - Public Finance
- Tyagi B.P - Public Finance
- Bhatia H.L. - Public Finance
- Lekhi R.K. - Public Finance
- Nathuramka L.N.- Money, Banking and Public Finance

Paper 6.2 History – IV

HISTORY OF RAJASTHAN HISTORY FROM EARLIEST TIMES TO 1956 A.D.

Teaching Hrs. : L-04

Exam Hrs. – 3

Total : 100

Marks : Internal 30 External 70

Module : 1

Main Sources of History of Rajasthan; An outline of Proto-Historic Rajasthan with special reference to Kalibanga, Ahar and Bairath; Outline of Matsya Janapad; Origin of Rajputs; Prithvi Raj Chauhan-III and his achievements.

Module : 2

The Policy of Collaboration and Resistance of the Rajput States with special reference to Hammir, Maharana Sanga, Maldeo, Maharana Pratap, Man Singh, Rai Singh of Bikaner, Jaswant Singh and Sawai Jai Singh.

Module : 3

Causes and Results of Maratha penetration in Rajputana; Circumstances and consequences of the treaties of 1818 A.D. signed with Britishers with special reference to Mewar, Marwar and Kota; War of Independence of 1857 A.D. in Rajasthan—Causes and results; Causes of political awakening in Rajasthan.

Module : 4

Peasant Movement in Bijolia; Tribal Movement under Govindgiri and Motilal Tejawat; Contribution of Prajamandals in the Freedom Movement with special reference to Bikaner, Jaipur and Marwar; Formation of Rajasthan in 1948-1956 A.D.

Module : 5

Characteristics of Feudalism in Rajput States; Changes in the position of the Rajput Nobility under British Paramountcy, Fort and Temple Architecture of Rajasthan; Rajasthani Art and Literature.

Select Bibliography:

- D.C.Shukla : Early History of Rajasthan
- Dashrath Sharma : Rajasthan Through the Ages.Vol.-I,Rajasthan State Archives, Bikaner.
- S.S. Saxena and Padmaja Sharma : Bijolia Kissan Andolan Ka Ithihas, Rajasthan State Archives Bikaner, 1972.
- V.P.Menon : Integration of the Indian State.

Paper 6.3 Family Law – I (Hindu Law)

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

Introduction - Sources, Schools and application, Religious and Charitable Endowment - Essentials of an Endowment, Kinds, Shebait and Mahant. **Joint Family**- Mitakshara joint family, Mitakshara coparcenary-formation and incidents, Property under Mitakshara law - separate property and coparcenary property, Dayabhaga coparcenary - formation and incidents, Property under Dayabhaga law, Karta of the joint family - his position, powers, privileges and obligations, Alienation of property - separate and coparcenary, Debts - doctrines of pious obligations and antecedent debt, Partition and re-union, Joint Hindu family as a social security institution and impact of Hindu Gains of Learning Act and various tax laws on it, Matrilineal joint family.

Module : 2 Customary practices and State regulation

Hindu marriage Act, 1955: Conditions of Hindu Marriage, its ceremonies and Registrations, Void and Voidable marriage, Polygamy, Concubinage, Child marriage, Restraint Act, 2007

Matrimonial Remedies: Restitution of conjugal Rights, Judicial Separation, Divorce Grounds, (a) Customary dissolution of marriage, divorce by mutual consent
Nullity of marriage : Bar to matrimonial relief : Marriage Act 1955

Module : 3 Inheritance

Historical perspective of traditional Hindu law as a background to the study of Hindu Succession Act, 1956

The Hindu Succession Act, 1956 : Definitions Succession to the property of a Hindu male. Succession to interest in coparcenary property, property of a Hindu female, Succession to the property of a Hindu female, General rules and disqualifications of succession, Escheat.

Module : 4 Alimony and maintenance

Maintenance of neglected wives, divorced wives, minor children, disabled children, and parents who are unable to support themselves; provisions under the code of Criminal Procedure, 1973, Alimony and maintenance as an independent remedy: a review under personal law, need for reforming the law, Alimony and maintenance as an ancillary relief, Legitimacy. Welfare of the child principle.

The Hindu Adoption and Maintenance Act, 1956 : Requisites of valid adoption, Capacity to take in adoption, capacity to give 'in' adoption, persons who may be adopted, other conditions for a valid adoption. Effects of adoption, Miscellaneous provision of adoption.

Maintenance of wife, children and parents, Maintenance of widowed daughter- in law, Dependents and their maintenance. Amount of maintenance, Miscellaneous provisions of maintenance.

Module : 5

The Hindu Minority and Guardianship Act, 1956: Natural guardians and their powers. Testamentary guardians and their powers, de facto guardian general provisions of guardianship.

Partition: Meaning, property for partition, persons entitled to claim partition and allotment of shares, partition how effected, Determination of Share, Reopening of partition. Re-union, Debts-Doctrine of pious obligation. Antecedent Debts.

Establishment of Family Courts: Constitution, power and functions, Administration of gender justice.

Uniform Civil Code-need for: Religious pluralism and its implications, Connotations of the directive contained in Article 44 of the Constitution, Impediments to the formulation of the Uniform Civil Code, The idea of Optional Uniform Civil Code.

Leading Cases:

- Shastri Yagna Purushdasji v. Muldas, AIR 1966 S.C. 1153.
- Hanooman Prasad v. Mussamat Babooee Mandraj Kunwaree (1856) 6 M.I.A. 305.
- Gita Hariharan v. Reserve Bank of India, AIR 1999 S.C. 1149.
- Bipin Chander v. Prabhavati, AIR 1957 S.C. 176.
- Dr.N.G. Dastane v. Sucheta Dastane, AIR 1975 S.C. 1534.

Select Bibliography:

- Mulla : Hindu Law
- Paras Diwan, Law of Intestate and Testamentary Succession (1998), Universal.
- Basu, N.D., Law of Succession (2000), Universal.
- Kusem, Marriage and Divorce Law Manual (2000) Universal.
- Manchanda, S.C., Law and Practice of Divorce in India (2000) Universal.
- P.V.Kane, History of Dharmasastras Vol.2 pt.1 at 624-632 (1974).
- A.Kuppuswami (ed.) Mayne's Hindu Law and Usage Ch.4(1986).
- B.Sivaramayys, Inequalities and the Law, (1985).
- K.C.Daiya, "Population control through family planning in India, "Indian Journal of Legal Studies, 85 (1979).
- J.D.M. Derrett, Hindu Law : Past and Present.
- J.D.M. Derrett, Death of Marriage Law.
- J.D.M. Derret, A Critique of Modern Hindu Law, (1970).
- Paras Diwan, Hindu Law (1985).
- S.T.Desai (ed.) Mulla's Principles of Hindu Law, (1998) - Butterworths-India.
- Paras Diwan, Family Law: Law of Marriage and Divorce in India, (1984).
- A.M.Bhattachargee, Hindu Law and the Constitution (1994) Eastern Law House, Calcutta.
- Paras Diwan, Law of Adoption, Ministry, Guardianship and Custody (2000), Universal.
- B.M. Gandhi.

Paper 6.4 Family Law – II (Muslim Law)

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

Evolution and application of Law: Origin, Development, Sources, Schools, Application, Interpretation, conversion

Marriage: Nature of marriage, Essentials of marriage, Khyar-ul-bulug, Iddat, Khilwat-us-sahih, Matrimonial Stipulations, Kinds of marriages, Effects of marriages.

Module : 2

Mahar (Dower): Meaning, Nature, Kinds of Dower, Objects of Dower , Subject matter of Dower Wife's right on non-payment of dower.

Dissolution of marriage: Historical background, Talaq, Various kinds of Talaq Sec.2 of the Dissolution of Muslim Marriage Act, 1939., Legal Effect of Divorce.

Module : 3

Pre-emption (Haq Shufa): Meaning. Nature of Pre-emption., Classification of Pre-emption, Essential formalities. Subject matter of pre-emption., Devices for evading pre-emption.

Gift (Hiba): Meaning , Requisites of valid gift., Gift of musha , Conditional and future gift. Life estate and life interest., Hiba-bil-ewaj , Hiba-ba-shart-ul-ewaj.

Module : 4

Will (Vasiyat): Competency of testator and legatee., Valid subject of will., Testamentary limitation., Formalities of a will., Abatement of Legacy.

Legitimacy and Acknowledgement: Legitimacy and Legitimation., Presumption of Legitimacy under Sec.112 of the Indian Evidence Act. Conditions for valid acknowledgement.

Maintenance Meaning, Persons entitled to maintenance. Principles of maintenance. Maintenance of Divorced Muslim woman under the Muslim woman (Protection of Right on Divorce) Act 1986. Death Bed Transactions , Meaning of Marz-ul-maut.

Module : 5

Waqf: Meaning of waqf., Essentials of waqf. Kinds of waqf, Beneficiaries of waqf. Formalities for creating waqf. , Waqf of musha. Administration of waqf. Mutawalli - Appointment, function, role, power, removal. The waqf validating Act, 1913. Takia, Khankah

Inheritance: General Principles of Law of inheritance., Classification of heirs under Hanafi and their shares and distribution of property.

Leading cases:

- Maina Bibi v. Choudhary Vakil Anmad (1925) 52 La.145.
- Habibur Rahman v. Altaf Ali (1921) 481. A.114.
- Monshee Bazul-ul-Raheem v. Luteefutoon - Nissa (1861) 8 MIA. 379.
- Abdul Fata v. Russmoy Chaudhary (1894) 2ZIA76.
- Mohd. Ahmad Khan v. Shah Bano Begum AIR 1985 S.C. 945.

Select Bibliography:

- Fyzee, Muhammedan Law.
- Mulla, Principles of Mohammedan Law.
- A.M. Bhattacharygee, Muslim Law and the constitution.
- Prof. B.L.Verma, Islamic law.
- Dr. D.S. Thalore, Muslim Law, UBH Jaipur
- Akil Ahamed - Muslim Law

Paper 6.5 Constitutional Law – II

Teaching Hrs.: L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

Directive Principles and Fundamental Duties: Directive Principles-directions for social change -A new social order. Interrelationship between fundamental rights and directive principles. Fundamental Duties – The need and status in constitutional set-up.

Module : 2

The State Executive: The Governor, The Council of Ministers, Relationship between the Governor and the Council of Ministers.

The State Legislature: Vidhan Sabha, Vidhan Parishad. The Panchyats The Municipalties.

Module : 3

Union and State Relationship:Legislative relationship, Administrative relationship Financial relationship.

Module : 4

State liability in contracts and Torts. Suits by and against the state. Property Rights (Article 300-A).

Freedom of Trade, Commerce and Intercourse

Module : 5

The Amendment of the Constitution: Necessity of Amending provisions in the constitution. ; Procedure for Amendment. Amendments of fundamental rights. Judicial review of amendment and the theory of Basic Structure. Temporary provision with respect of the state of J& K Union of India, AIR 1978 SC 1789

Select Bibliography:

- D.D. Basu, Introduction of the constitution of India, Prentice Hall of India, Delhi.
- H.M.Seervai, Constitution of India, Vol.1-3, Tripathi, Bombay.
- V.N.Shukla, Constitutional law of India, Oxford.
- G.Austin, Indian Constitution : Cornerstone of a Nation.
- M.P. Jain, Indian Constitutional Law, Wadhwa and Company, Nagpur.
- Kagzi, The Constitution of India, India Law House, N.Delhi.
- J.N.Pandey- Constitution of India (English)

**Paper 6.6 PUBLIC INTEREST LAWYERING;
LEGAL AID AND PARA LEGAL SERVICES**

Teaching Hrs. : L-04
Total : 100

Exam Hrs. – 3
Marks : Internal 30 External 70

Module : 1

Introduction: PIL- its origin and meaning Scope and nature of PIL Object of PIL PIL and Private Interest Litigation

Locus Standi: Principle of locus standi- traditional approach Liberal approach Guidelines for entertaining a PIL Petition by public spirited person or association Misuse of PIL.

Module : 2

PIL and enforcement of Fundamental Rights General Compensation for breach of fundamental rights Compensation for illegal detention Compensation to victim of police atrocities. PIL as a redress to custodial violence cases. PIL and Environmental Law

Module : 3

Pollution- a curse to mankind.

Pollution free environment as a fundamental right. Enforcement of environmental laws through filing PIL.

PIL for the enforcement of the rights of weaker sections of the society

For the enforcement of the rights of women. For the enforcement of the rights of children. For the enforcement of the rights of bonded labour.

Module : 4

Legal Aid : Meaning, Nature, Scope, and Development Constitutional provisions ; Provision of civil procedure code and code of criminal procedure regarding legal aid The Legal Services Authorities Act and legal aid.

Drafting of PIL petitions and writing of applications for legal aid

Module : 5

The Legal Services Authorities Act, 1987 (as amended by the Act of 2002)

The national legal services authority- constitution and functions

State legal services authority- constitution and functions

District legal services authority, Taluk legal services committee- constitution and functions

Lok Adalat- organization, cognizances of cases, award and powers.

Pre litigation, conciliation and settlement

Permanent lok adalat- establishment, cognizance of cases, procedure and award

The Rajasthan State Legal Services Authority Regulations,1999- Legal literacy, legal awareness committee: Constitution and functions of High Court and District Legal awareness committee

Organization of legal awareness camps by law schools

Role of voluntary organizations

Leading Cases:

- Bandhua Mukti Morcha v. Union of India AIR 1984 SC 802, (1984) 3 SCC 161
- Olga Tellis v. Bombay Municipal Corporation (1985) 3 SCC 545, AIR 1986 SC 180
- Sukdas v. Union Territory of Arunachal Pradesh (1986) 2 SCC 401, AIR 1986 SC 991
- Sheela Barse v. State of Maharashtra AIR 1983 SC 378

Select Bibliography

- Dr. S.R. Myneni- Public Interest lawyering legal aid and para legal services
- Sujan Singh- Legal aid-human right to equality

- S.S. Sharma- legal assistance to Poor
- P.N. Bhagwati- legal aid as human right
- P.N. Bajpayee- Legal aid and the Bar council
- Sunil Deshtra- lok adalats in India- genesis and functioning
- Sampat Jain- Public Interest Litigation
- Dr. Kailash Rai- Janhit Vakalat, vidhik sahyog evam ardh vidhik sevayen.
- Suresh Bhatia- Nirdhan Vidhik Shayta, Rajasthan Hindi Granth Academy
- P.M. Bakshi- Public Interest Litigation

B.A. LL.B. 5 YEAR INTEGRATED

(HONOURS COURSE FOR SESSION 2022-23)

4th Year (Semester –VII)

Paper 7.1 Political Science – IV

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

Major Landmarks in the Constitutional Development of India, Framing of the Indian Constitution-Major Issues, Trends and Approaches of the Constituent Assembly; Preamble of the Constitution; Salient features of the Indian Constitution.

Module : 2

Human Rights Philosophy in Indian Constitution; Fundamental Rights and Directive Principles of State Policy, Methods of Amendment of Constitution; Nature of the Federal System, Union-State Relationship and recent trends.

Module : 3

The Union Executive; The Union Parliament, Working of Parliamentary System, The Supreme Court; The Judicial Review; Emergency Provisions.

Module : 4

Office of the Governor, Chief Minister and High Courts, Role of Leadership, Coalition Govt., Party System, Election Commission, Electoral Politics and Electoral Reforms.

Module : 5

National Integration: Major problems facing Indian Political System- Terrorism, Linguism, Regionalism, Communalism, Politics of Reservation; Role of Caste in Indian Politics.

Paper 7.2 Administrative Law

Teaching Hrs.: L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

Evolution, nature and scope of Administrative Law- from a laissez faire to a social welfare state, evolution of administration as the fourth branch of government, conseil'detate, definition and scope of Administrative Law, relationship between Constitutional Law and Administrative Law, separation of powers and rule of law.

Civil services in India: Nature and organization of civil services:

Module : 2

Delegated Legislation: Necessity constitutionality of delegated legislation- and its limitations, powers of exclusion, inclusion and power to modify statute, procedure, Legislative and judicial control of delegated legislation, sub-delegation of legislative powers.

Module : 3

Judicial powers of administration:

(i) Administrative tribunals-need, nature, constitution, jurisdiction and procedure. Distinction between quasi-judicial and administrative functions.

(ii) Principles of natural justice- the right to hearing- essential of hearing process, no man shall be judge in his own cause, no man shall be condemned unheard, reasoned decisions, the right to counsel.

Module : 4

Judicial control of administrative action: grounds-jurisdictional error, ultravires, abuse and non exercise of jurisdiction, error apparent on the face of record, violation of principles of natural justice, violation of public policy, unreasonableness and legitimate expectation. Remedies in judicial review, writs, declaratory judgments and injunctions, specific performance and civil suits for compensation.

Administrative discretion: Need for administrative discretion, administrative discretion and rule of law, limitations on exercise of discretion-malafide exercise of discretion, constitutional imperative and use of discretionary authority.

Module : 5

Contractual and tortious liability of state: Tortious liability, sovereign and non sovereign functions, statutory immunity, act of state, contractual liability of government, government privilege in legal proceedings-state secrets, public interest, transparency and right to information.

Corporation and Public undertakings: State monopoly, liability of public and private corporations-departmental undertakings, legislative and governmental control, legal remedies, accountability- committee on public undertakings, estimate committee.

Public inquiries and commission inquiry, ombudsman: lokpal, lokayukta, vigilance commission, parliamentary committees.

Leading cases:

- A.K. Kraipak v. Union of India AIR 1970 SC 150
- In re Delhi Laws Act, AIR 1951 SC 332
- Raj Narayan v. Chairman, Patna Administration Committee Patna AIR 1954 SC 569
- Syed Yaqoob v. Radha Krishnan AIR 1964 SC 477
- Rohtash industries Pvt Ltd v. S.D. Agarwal AIR 1969 SC 707
- State of Karnataka v. Union of India AIR 1978 SC 68

Select Bibliography:

- M.C.J kagzi- The Indian Administrative Law
- I.P. Massey: Administrative Law
- D.D. Basu: Administrative Law
- M.A. Fazal: Judicial control of Administrative action in India, Pakistan and Bangladesh
- Wade: Administrative Law
- S.P. Sathe: Administrative Law
- U.P.D. Kesari: Prashasnic Vidhi
- Jain and Jain- Principles of Administrative Law
- J.J.R. Upadhyay- Prashasnic Vidhi

Paper 7.3 Taxation Law

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

Basic concept: Assessment year, Previous year, Person, Assessee, Income , Agricultural Income, Casual Income, Capital Asset, Charitable purpose, Total Income, Gross Total Income, step system and slab system, Capital and Revenue, Avoidance of tax and tax evasion, Income tax authorities. Residential; status and Tax Incidence– Exemptions and deductions of Income.

General Perspective: History of tax law in India, fundamental principles relating to tax laws, concept of tax, nature and characteristics of taxes, distinction between tax and fees, tax and Access, direct and indirect taxes, tax evasion and tax avoidance, scope of taxing powers of parliament, state legislature and local bodies.

Module : 2

Income Tax Act, 1961, Income under the Head 'Salaries' Income from House Property, Income of other persons included in Assessee's Total income.

Module : 3

Profits and Gains of Business or Profession, Depreciation allowance, Capital Gains, Income from other sources, Set off and carry forward of losses.

Module : 4

Return of Income, Assessment and Re-assessment, Assessment of Firms and Partners and Penalties offences and prosecution under this Act, Appeal and revision.

Module : 5

Wealth Tax Act: Valuation date, Net Wealth, Incidence of Tax, Assets, Assets exempted from Tax Return of Wealth, Assessment, Time limit for completion of assessment.

Key Features of Central Goods And Services Tax Act, 2017

Leading Cases:

- P. Krishana Menon v. CIT, AIR 1956 SC 75
- CIT West Bengal v. Benoy Kumar Saha Roy, AIR 1957 SC 761
- Mala Ram & Sons v. CIT AIR 1956 SC 367
- Pingle Industries Ltd v. CIT AIR 1960 SC 1934
- Banaras Cloth Dealers Syndicate v. Benaras 1964 ITR 50
- CIT v. Kothari (1963) 40 ITR 107 (SC)

Select Bibliography:

- Ramesh Sharma, Supreme Court on Direct taxes
- Kanga and Palkiwala, The Law and practice of Income Tax
- R.V. Patel, The Central Sales Tax Act
- S.D. Singh, Principles of Law of Sales Tax
- H.C. Malhotra, Aykar Vidhan Lekha
- Bhagwati Prasad, Aykar Vidhi
- S. Bhattacharya : Indian Income Tax Law and Practice.
- A.K. Saxena : Law on Income tax in India.
- Nathulal Jain : Ayakar Vidhi.
- Kailash Rai : Ayakar Vidhi.

Paper 7. 4 Law of Crimes (Indian Penal Code)

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

General Introduction: Concept of crime: Its definition, nature and scope. Distinction between crime and other wrongs. Applicability of IPC: Intra and Extra territorial operation. Salient features of the IPC, general explanations.

Elements of criminal liability: Mental elements in crime- mensrea (evil intention), its importance and exceptions. (Trends to fix liability without mensrea). State's power to determine acts or omissions as crime.

Types of Punishment: Death punishment, its impacts and social relevance. Alternative to capital punishment; imprisonment for life with hard labour, simple imprisonment; Forfeiture of property and fine. Discretion of Court in awarding punishment. Minimum punishment in respect of certain offences.

Stages of a crime: mere intention not punishable, preparation, attempt- tests for determining what constitutes attempt- proximity, equivocality and social danger, impossible attempts.

Module : 2

General Exceptions: Factors negative guilty intention: Mistake of fact not of law; judicial act, accident, necessity, minority and insanity; (Impairment of cognitive faculties, emotional imbalance) medical and legal insanity; Intoxication. Private defence justification and limits when private defence extends to causing of death to protect body and property.

Module : 3

Group Liability: Common intention, unlawful assembly and common object. Abetment: instigation, aiding and conspiracy. Mere act of abetment punishable. Provisions relating to criminal conspiracy. Riot and affray.

Offences against the state-waging war against the state and sedition. Offences against public servant and public justice, Contempt of lawful authority of public servants; giving and fabricating false evidence and aggravated form of the crime.

Module : 4

Specific offences against Human Body :

(i) Culpable homicide, murder, distinction between culpable homicide and murder. Situation justifying treating murder as culpable homicide not amounting to murder-grave and sudden provocation, exceeding right of private defence, public servant exceeding legitimate use of force, death in sudden fight, death caused by consent of the deceased- euthanasia and surgical operation. Death caused of person other than the person intended. Rash and negligent act causing death.

(ii) Hurt- simple and grievous

(iii) Wrongful restraint and wrongful confinement

(iv) Criminal force and assault

(v) Kidnapping and abduction.

Offences against women:-

(i) Insulting the modesty of a woman, assault or criminal force with intent to outrage the modesty of a woman.

(ii) Miscarriage: Causing miscarriage without women's consent and causing death by miscarriage without women's consent.

(iii) Kidnapping or abducting woman to compel her to marry or force her to illicit intercourse.

(iv) Buying or selling a minor for purposes of prostitution.

(v) Rape- custodial rape, gang rape, marital rape, unlawful sexual intercourse.

(vi) Prevention of immoral traffic and prevention of sati

(vii) Cruelty by husband or his relative

(viii) Dowry death

(ix) Prohibition of indecent representation of women

Protection of Women from Domestic Violence Act, 2005: Definitions, Power and duties of protection of officers and service providers, Application to Magistrate, Protection orders, Residence orders, Custody orders, Compensation orders and Monetary reliefs, Penalty for breach of protection orders by respondent.

Module : 5

Offences against property- theft, extortion, robbery, dacoity, criminal misappropriation of property, criminal breach of trust, cheating, mischief and criminal trespass

Offences relating to documents: Forgery or making a forged document

Offences relating to marriage: Bigamy, marriage or fraudulently gone through without lawful marriage, adultery, enticing or deceiving a married woman.

Defamation: definition and exceptions

Leading cases:

- Reg v. Govinda IR 1876 1 BOM 342.

- Kedarnath v. State of Bihar AIR 1962 SC 955

- T.D. Vadgama v. State of Gujrat AIR 1973 SC 2313

- Veliji Ragahvji v. State of Maharashtra AIR 1965 SC 1433

- K.N. Nanavati v. State of Maharashtra AIR 1962 SC 605

Select Bibliography:

- Dr. Hari Singh Gour : Penal law of India

- Rattan Lal and Dhirajlal: The Indian Penal Code

- Dr. S.N. Mishra : The Indian Penal Code

- O.P. Srivastava : Principles of Criminal Law

- P.S. Achuthan Pillai: Criminal law

- T. Bhattacharya: Bhartiya Dand Sanhita

- K.D. Gaur : Cases and Materials on Criminal Law
- M.P. Tondan : Indian Penal Code

Paper 7.5 Procedure Law – I (Cr.P.C.)
THE CODE OF CRIMINAL PROCEDURE, 1973, JUVENILE
JUSTICE ACT, 2015 AND PROBATION OF OFFENDERS ACT, 1958

Teaching Hrs.: L-04
Total : 100

Exam Hrs. – 3
Marks : Internal 30 External 70

Module : 1 The Code of Criminal Procedure, 1973

Preliminary:

- (a) Object, Extent and definitions (Chapter 1)
- (b) Duties of Public: (i) To assist to police and Magistrate (ii) To give information about certain offences (Chapter IV Ss. 37 to 40)

Criminal Courts:

- (a) Territorial divisions and Classifications (Chapter II, Ss 6 to 25).
- (b) Powers (Chapter III, Ss. 26 to 31).

Module : 2

Pre-Trial Procedure :

- (a) Arrest of Persons (Chapter V)
- (b) Process to compel appearance (Chapter VI).
- (c) Process to compel Production of things (Chapter VII).
- (d) Information to the Police and their powers of Investigation (Chapter XII)
- (e) Bail (Chapter XXXIII).
- (f) Jurisdiction of the courts in inquiries and trials (Chapter XIII); Order to furnish security for keeping peace and good behaviour (ss. 106-124)
- (g) Maintenance of Public Order and Tranquility (Chapter-X) Conditions requisite for initiation of proceedings, Complaints to Magistrates, Cognizance of Offence and Charge (Chapter XIV, XV and XVII).

Module : 3

Types of Trials.

- (i) Trial before Court of Session (Chapter XVIII).
- (ii) Trial of Warrant and Summons Cases (Chapter XIX & XX)
- (iii) Summary Trials (Chapter XXI)
- (iv) Maintenance of Wife, Children and Parents (Sec. 125 to 128).

Module : 4

Judgment (Chapter XXVII)

- (a) Appeal (Chapter XXIX) Reference and revision (Chapter XXX).
- (b) Misc. Provisions:
 - (i) Irregular proceedings (Chapter XXXV)
 - (ii) Period of Limitation (Chapter XXXVI)
 - (iii) Autrefois acquit and Autrefois convict (Sec 300).
 - (iv) Legal Aid to the accused at State Expenses (S. 303 & 304)
 - (v) Pardon to an accomplice (Sec 306 to 308)
 - (vi) Saving of Inherent powers of High Court (Sec. 482).

Module : 5 The Juvenile Justice Act, 2015.

Definitions, Competent authorities and institutions for juveniles, Neglected Delinquent Juveniles. Procedures and competent authorities, special offences in respect of juveniles.

Probation of offenders Act, 1958:

Definitions, Power of court to require released offenders after admonition on probation of good conduct, power of Court to require released offenders to pay compensation under twenty one years of age, Variations of conditions of probation, Probation in case of 'Offender' failing to observe conditions of bond, provision as to sureties, Probation Officers, Duties of Probation Officers.

Leading Cases :

- Tehsildar Singh v. State of UP , AIR 1959 SC. 1012
- State of U.P. v. Singhara Singh, AIR 1964 SC 359.

- Nisar Ali v. State of U.P. AIR 1957 SC 336.
- Purshottam Das Dalmia v. State of West Bengal, AIR 1961 SC. 1589.
- State of Andhra Pradesh v. Cheemalapati Ganeshwara Rao, AIR 1963 SC 1850
- Satwant Singh v. State of Punjab, AIR 1960 S.C. 266.

Select Bibliography :

- Ratan Lal : Criminal Procedure Code.
- Ganguly, A.C. : A Guide to Criminal Code Practice.
- The Juvenile Justice (care and Protection of children) Act,2000.
- Probation of Offenders Act, 1958.
- Chakravarti, N.K. - Probation system - in the Administration of Criminal justice.
- Tiwari Y.K.- CR.P.C (Hindi)
- Jain P.C.- CR.P.C (Hindi)
- M.D. Chaturvedi- CR.P.C etc. (Hindi)
- B.L. Babel- CR.P.C (Hindi)

Paper 7.6 Procedure Law – II (C.P.C.)

THE CODE OF CIVIL PROCEDURE 1908 AND THE LIMITATION ACT, 1963

Teaching Hrs. : L-04

Exam Hrs. – 3

Total : 100

Marks : Internal 30 External 70

Module : 1

Definitions, suits in general, suits of civil nature, stay of suit, Res judicata, Res subjudice, Foreign Judgment.

Module : 2

Place of trial, Transfer of suits, Joinder, non-joinder and mis-joinder of parties and causes of action, Service of Summon, Attachment before judgment, Arrest before Judgment. Supplemental proceedings.

Module : 3

Execution in general: Courts by which decrees may be executed, powers of the court executing the decrees. Transfer of decrees for execution and modes of execution, Stay of execution, Suits in particular cases (Orders xxix to xxxiii). Abatement of suits, summary proceedings.

Module : 4

Temporary injunction and Appointment of Receiver, Appeals-Appeals against order and appeal against decree, Review. Revision and Reference, Transfer of cases, Restitutions, Caveat, Inherent powers.

Module : 5

The Limitation Act, 1963 (Omitting the Schedule) Definitions : Purpose, Policy, Scope, Applicant, bond, Defendant, easement, good faith, plaintiff, period of limitation Relationship between limitation, laches, acquiescence, estoppels and res judicata; Limitation of suits, appeals and applications, disability, computation of period of limitation, acknowledgement and part payment, acquisition of ownership by prescription

Leading Cases:

- Shri Sinha Ramanuja v. Ranga Ramanuja, AIR 1961 SC 1720.
- Seth Hukamchand v. Maharaja Bahadur Singh AIR 1933 PC 193
- Narain Bhagwant Rao v. Gopal Vinayak AIR 1960 SC 100
- Garikapati Veerava v. Subbiah Chaudhary, AIR 1957 SC 540.
- Deoki Nandan v. Murlidhar, AIR 1957 SC 133.
- Deity Pattabhirama Swamy v. Hanmayya, AIR 1959 SC 57.
- S.M. jakati v. B.M. Borker, AIR 1959 S.C. 282.

Select Bibliography:

- Mulla- Civil Procedure Code.
- Singh S.N. - Civil Procedure Code.
- Sahai on Civil Procedure.
- Tandon, M.P. - Civil Procedure Code (English & Hindi)
- Mridula Srivastava - Civil procedure Code (Hindi)

- A.N. Pandey - Civil Procedure Code (Hindi)
- C.K. Tekwani- Civil Procedure Code
- T.P. Tripathi- Civil Procedure Code (Hindi) Limitation ACT

B.A. LL.B. 5 YEAR INTEGRATED

(HONOURS COURSE FOR SESSION 2022-23)

4th Year (Semester –VIII)

Paper 8.1 Sociology – IV Social Problems in Contemporary India

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

Social Problem: meaning, concept and types. Crime and Delinquency: meaning, causes, types, theories and remedies.

Module : 2

Issue of Population during 20th Century: Population Problem, Population Education and programmes of control. Population Control -measures, causes for success and failure. Issue of Population in 21st Century: Demographic Dividend

Module : 3

Problem of Youth, Drug Abuse and AIDS, Problems of Women in India. Women Empowerment, Female foeticide.

Module : 4

Poverty, Unemployment and Illiteracy: causes forms and remedies. Human rights and Social Problems. Environment degradation and solutions.

Module : 5

Social Problems of special groups in India-The Scheduled castes, Scheduled Tribes and Other Backward classes. Problems of Minorities and Communalism.

Select Bibliography:

- Ahuja Ram.: Social Problems in India, Jaipur, Rawat. Beteille,
- Andre. 1974.: Social Inequality, New Delhi, Oxford University Press. Beteille,
- Andre. 1992.: Backward Classes in Contemporary India, New Delhi, Oxford University press. Berreman,
- G.D.1979.: Caste and other Inequalities: Essay in Inequality. Meerut, Folklore Institute.
- Guha, Ranjit, 1991. : Subaltern Studies, New York: Oxford University Press. Kothari,
- Rajni (Ed)1973.: Caste in Indian Politics Madan,
- G.R.: Social Problems in India. Madan, T.N. 1991.: Religion in India, New Delhi, Oxford University Press. India Year Book, NBT, New Delhi.

Paper 8.2 Jurisprudence

Teaching Hrs.: L-04

Total : 100

Exam Hrs. – 3

Marks: Internal 30 External 70

Module : 1

Introduction: Meaning, definition, nature, scope and importance of Jurisprudence.

Norms and the normative System: Different types of normative systems, such as of games, language, religious orders, unions, clubs and customary practice. Legal systems as a normative order: similarities and difference of the legal system with other normative systems. Law: Nature and definition given by different jurists.

Module : 2

Schools of Jurisprudence: Analytical positivism, Natural Law School, Historical School, Sociological School Economic Interpretation of Law, Realist School.

The Indian Jurisprudence: Origin and its nature, The concept of 'Dharma'

Module : 3

Purpose of Law: Justice, meaning and kinds, Justice and law: Approaches of different schools; Power of the Supreme Court of India to render complete Justice in a case with special reference to Article 142. Critical studies, Feminist Jurisprudence.

Sources of Law : Customs, legislations, judicial precedent and Juristic writings as a source of law. Concept of Stare decisis, obiter dicta and Ratio decedendi.

Module : 4

Persons: Nature of personality, status of the unborn, minor, lunatic, drunken, dead person, idol and mosque; corporate personality- Corporate sole and corporate aggregate; dimensions of the modern legal personality of non-human beings.

Possession: Concept and kinds of possession.

Ownership: The concept, kinds. Relation between possession and ownership.

Module : 5

Concept of legal rights, its kinds and right-duty corelation.

Title:

Property: Concept and kinds of property.

Liability: Conditions required for imposing liability, wrongful act-damnum sine injuria and injuria sine damnum. Causation, mensrea, intention, motive. Malice, negligence and recklessness. Strict and vicarious liability.

Obligation- nature, kinds and sources of obligation.

Procedure: difference between substantive and procedural laws. Evidence-nature and kinds. Theory of Punishment, Administration of Justice, Capital Punishment.

Leading Cases:

- Keshavanand Bharti Vs State of Kerala, AIR 1973 SC 1461 (Per Mathew J.)-Paras 1617-1620 (Sovereignty) 1685-1698 (Natural Law and Natural rights) 1726-1729 (Roscoe pound and Sociological Jurisprudence) 1738-1751 (Property rights and Social Justice).
- A.K. Gopalan Vs State of Madras, AIR 1950 SC 27 (S.970 paras 18, 19 Per Kania C.J.) Paras 107-109 (Per Patanjali Shastri) Para 192 (Per Mukherji J.) Paras 228 (Per Das J. Natural Law and Positive Law)
- Maharaja Shree Ummed Mills Ltd Vs Union of India, AIR 1963 SC 953 Paras 12, 13, 14 (Per SK. Das J.) Concept of Law; Legislative agreements)
- Jaipur Udyog Ltd Vs Income Tax Commissioner, AIR 1965 Raj 162 Paras 12, 13, 14 (Per Tyagi J.) (Sovereignty, Separation of powers and functions).
- Shrimati Indira Nehru Gandhi Vs Raj Narayan, AIR 1975 SC 2299 Paras 219 and 299 (Per Mathew J.) (generally as a property of law.)
- In Re Article 143 (Keshav Singh) AIR 1965 SC 745 paras 9-17 (Per Sarkar J. Law making by judicial and legislative comity).
- Bengal Immunity Co. Vs State of Bihar, AIR 1955 SC 661 (Precedent)
- Trilochand Motichand V. H.B Munshi AIR 1970 SC 898 (Para 4 to 11, per Hidayatulla CJ.) Para 36 per Bhachawat J.; Para 59-63 per Hegde J.). These excerpt illustrate problems and uses of Hohfeld analysis.
- Menka Gandhi Vs Union of India, AIR 1978 SC 597

Select Bibliography:

- Salmond: Jurisprudence
- Dias: Jurisprudence
- Wayne Morrison: Jurisprudence
- Julius Stone: The Province and Function of Law
- Holland: Jurisprudence
- S.N. Dhyani: Jurisprudence- A Study of Indian Legal Theory
- N.V. Paranjape: Vidhi Shastra
- V.D. Mahajan, Jurisprudence and Legal Theory
- Bodenheimer: Jurisprudence- The Philosophy and Method of Law.
- Mulla- Hindu Law
- Mani Tripathi- Jurisprudence (Hindi)

Paper 8.3 ARBITRATION, CONCILIATION AND ALTERNATIVE DISPUTES RESOLUTION SYSTEMS

Teaching Hrs. : L-04
Total : 100

Exam Hrs. – 3
Marks : Internal 30 External 70

Module : 1

Arbitration and Conciliation Act, 1996: General provisions: Arbitration agreement; Arbitral Tribunal : Composition and Jurisdiction; Conduct of Arbitral Proceeding.

Module : 2

Arbitral awards: Termination of proceedings, setting aside the Arbitral award; Enforcement of Arbitral awards, Appeals; Code of ethics for Arbitrators.

Module : 3

Enforcement of Foreign-awards; Geneva Convention International arbitration institutions Conciliation: conciliators, appointment of conciliators, relationship of conciliators with the parties, settlement agreement status and effect of settlement agreements. Terminations of conciliation proceedings, resort to judicial proceedings, cost and deposits.

Module : 4

Alternative dispute & resolution system: Objects and role of committee for implementation of legal aid schemes (CILAS). The Legal services authorities act, 1987 (as amended by the act of 2002)- The national legal service authority, State legal service authority and District legal service authority- constitution and functions;

Module : 5

Lok Adalat: Organisation, cognizance of cases, award and powers. Permanent Lok Adalat-establishment, cognizance of cases, procedure and award. Study of other alternative dispute resolution system in brief such as Nyay Panchayat and Family courts.

Leading Cases:

- Sundaram Finance Ltd. v. NIPC India Ltd. (1999) 2 SCC 479
- NMTCL Ltd. v. Sterlite Industries Ltd. 1996(4) SCC 219
- Lotus Investment and Securities v. Pramod S. Tiberwal 1996(2) SCC 579
- State of Rajasthan v. Bharat Construction Co. 1998 (4) CCs 172 (Raj.)

Selected Bibliography:

- G.C. Mathur, Arbitration and Conciliation Act, 1996.
- S. Krishnamurthy: Law of Arbitration and Conciliation.
- P.M.Bakshi: Arbitration Law.
- O.P. Tiwari: The Arbitration and Conciliation Act, 1996
- Avtar Singh: Law of Arbitration and Conciliation.

Paper 8.4 Law of Evidence

Teaching Hrs. : L-04
Total : 100

Exam Hrs. – 3
Marks : Internal 30 External 70

Module : 1

Preliminary: Application of Indian Evidence Act. Definitions: Court, fact-fact in issue and relevant fact, evidence - meaning and its kinds, proved, disproved, not proved, may presume, shall presume and conclusive proof, Presumptions of fact and law, presumptions regarding documents. Relevancy of facts : Explaining Res-gestae, occasion, cause, effect; motive, intention, preparation, previous and subsequent conduct, introductory and explanatory facts, facts not relevant when become relevant, accidental and incidental facts. Facts which need not be proved, improper admission and rejection of facts.

Module : 2 Admission and Confession

- (a) Admission: Definition, whose admission is relevant, relevancy of admission in civil cases, admission is not conclusive proof. Admission and Estoppel.
- (b) Confession: definition, its kinds, confession caused by inducement, threat or promise, confession to police officer, confession in the custody of police, confession to Magistrate, confession by co-accused.

- (c) Difference between admission and confession, Relevancy of statements.
- (d) Dying Declarations: The justification for relevance on dying declarations (Section 32), The judicial standards for appreciation of evidentiary value of dying declarations. Other Statement by Persons who cannot be called as Witnesses: General Principles, Special problems concerning violation of women's rights in marriage in the law of evidence.

Module : 3

Statement made under special circumstances.

Relevancy of judgement of a court of law.

Opinion of third person.

Opinion of experts / third person.

Relevancy of character

Evidence: Oral evidence, documentary evidence, kinds of documentary evidence, when secondary evidence is relevant. Public and private document. Exclusion of oral evidence by documentary evidence: Application of this principle and its exceptions, ambiguous documents, kinds of ambiguity.

Module : 4

Burden of Proof: Meaning, general principles of burden of proof in civil and criminal cases and exceptions to it. When burden of proof shifts, proof of legitimacy of child, proof in dowry deaths and in the matters of rape.

Estoppels: meaning, essentials, nature and its kinds. Competency of witnesses, when a person can be compelled to appear as witness, privileged communications and documents, accomplice, hostile witness.

Module : 5

Examination of Witnesses: Order of examinations. kinds of examinations. leading question, impeaching the credit of witness, questions which can and which cannot be asked, refreshing the memory of witness, production of documents, Judge's power to put questions and to order production. Effect of improper acceptance or rejection of evidence.

Leading Cases:

- Nishi Kant Jha v. State of Bihar, AIR 1969 SC 422.
- Himachal Pradesh Administration v. Om Prakash AIR 1972 SC 975.
- Sat Paul v. Delhi Administration, AIR 1976 SC 294.
- Laxmipat Chorasias v. State of Maharashtra, AIR 1968 SC 938.
- Pakala Narayan Swami v. Emperor, AIR 1939 PC 47.
- Bhardwade Bhogin Bhan Herrji Bhai v. State of Gujarat AIR 1988 SC 753.
- RM Malkani v. State of Maharashtra, AIR 1973 2SCR 417

Select Bibliography:

- Ratan Lal & Dhiraj Lal-The law of Evidence
- Batuklal- Law of Evidence
- Vepa P. Sarathi - Law of Evidence
- Raja Ram Yadav- Law of Evidence

Paper 8.5 DRAFTING, PLEADING, CONVEYANCING AND MOOT COURT TRIAL

Teaching Hrs. : L-04

Exam Hrs. – 3

Total : 100

Marks : Internal 30 External 70

Module : 1

Pleading: Meaning, Kinds; Fundamental principles of pleading and their exceptions, amendment of pleadings, alternate and inconsistent pleadings Doctrine of set-off: Legal set-off and equitable set-off

Module : 2

Drafting of pleadings Civil: Plaints, written statement, Original Petition, Affidavit, Notice, Execution Petitions, Memorandum of Appeal, Execution of Writ Petition. and Judgement writing

Module : 3

Criminal complaints, Bail Application, Accused Reply, criminal Miscellaneous Petition, Appeal, Reference and Revision.

Module : 4

Conveyancing: Meaning, General Rules of Conveyancing, Salient parts of conveyancing, rules relating to the drafting.

Module : 5

Drafting of Deeds: Partnership deed, mortgage by conditional sale, notice for eviction, writing of government contract, sale deed, Mortgage Deed, Gift Deed, Lease Deed, Rent Deed, Power of Attorney, Promissory Note and will.

Paper 8.6 MOOT COURT and MOCK TRIAL

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 100

Moot Courts The teacher teaching this course will supply three Moot Court problems to the students in the course of a single semester requiring them to work on all three problems assigned to them, prepare written submissions (memorials) and present oral arguments in a moot court setting. 30 marks for this component are divided equally between written submission and oral arguments.

Students may be asked to work in teams at the discretion of teacher. Each student will prepare a case only on one side.

A. Rules of Memorial submissions:

1. Each student/team must submit one typed and bound copy of the memorial on either side no later than the date fixed and announced in the class. Memorials will not be accepted after the prescribed date and time and the student will lose the marks assigned for that assignment.

2. Memorial specifications:

- (a) Memorials must be printed on A4 size white paper with black ink on both sides of the paper.
- (b) The body of the memorial must be in Fonts Times New Roman, Size 12 and footnotes in Fonts Times New Roman in Size 10.
- (c) Each page must have a margin of at least one-inch on all sides. Do not add any designs or borders on the pages.
- (d) Memorials should be submitted with differently colored Title Page for each side: Title page in red colour for Petitioner/Appellant. Title page in blue colour for respondent.
- (e) The Memorial should not exceed 20 typed pages (line space 1.5) and shall consist of the following Parts:
 - Table of Contents • Statement of Facts • Statement of Jurisdiction List of References and Cases
 - Statement of Issues • Summary of Arguments • Detailed Pleadings • Prayer • Affidavit, if necessary
 - (f) Relevant Annexure may be kept by the student and may be used during oral arguments, if necessary.

B. Rules of Oral Arguments: • Court Language shall be English. • Each student would be given 10 minutes to present their oral arguments • Judges may, at their discretion extend oral argument time, up to a maximum of 5 minutes. • Rebuttal would be allowed only to the petitioner and they would have to specify in the beginning the time they want to set apart for rebuttal.

C. Evaluation: The oral performance will be evaluated on the basis of communication skills, application of facts, persuasion / use of authorities, and response to questions.

Mock Trial: The students would be required to conduct trial in two cases, one Civil and one Criminal during the course of the semester. The students will be divided in teams of lawyers and witnesses. Each student will be required to function as a lawyer and witness in the trials being simulated in the classes. Students' performance will be evaluated on the basis of equal marks being assigned for case analysis, written submissions, Examination-in-chief, Cross-examination, and final arguments. 5 marks will be assigned for performance as witnesses.

B.A. LL.B. 5 YEAR INTEGRATED

(HONOURS COURSE FOR SESSION 2022-23)

5th Year (Semester –IX)

Paper 9.1 Forensic Science

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

1. Different areas of Forensic Science.
2. Role & Scope of Forensic Science
3. Forensic Identification
4. Forensic Toxicology
5. Post Mortem Investigation
6. Forensic Analysis in Criminal Investigation
Constitutional & Legal Issues
Provisions Under Cr.P.C.
7. Medical Opinion:
F.I.R., Evidently Value of statements recorded under section 161&164 of Cr.P.C.,
Confession, Dying Declaration, Case Diary, Expert Opinion, Value of Medical Opinion

Module : 2

1. **Medical Negligence & Consumer Protection Act**
Negligence, Negligence & Its relation with ‘Copra’, Definitional Aspects, Civil & Criminal Negligence, Degree of Negligence.
2. **Human Right And Medicine**
Forensic Science in the service of Human Rights
Forensic Science Services and the crime scene Investigation Process
Types of Torture: Impalement, Neck Torture, Crucifixion, Rape Torturer, Forensic Readiness & Forensic Readiness

Module : 3

1. **Medico Legal Aspects of Injuries:** Types of Injuries, Opinion of Medial Officer
Injuries caused by: Knife, Sharp edged weapon, Sharp edged heavy cutting weapon and built weapon like stone.
2. **Medico Legal Aspects of Wound:** Incised wound, Lacerated wound / Inside wound distinction, Injuries of the head and spine cranio-cerebral injury/

Module : 4

1. **Death :** Definition, Notification certification, registration presumption
Mode of Death: Asphyxia, Hanging, Strangulation, Suffocation Drowning, Throttling
2. **Post-Mortem Examination:** Special Investigation in purified bodies, Staining, Method of making a post mortem examination for medico legal purpose, Internal Examination of Body, Post mortem Report

Module : 5

1. **Test Tube Techniques:** Types, Issues of Adultery, Divorce, Nullity of Marriage (Voidable), Issues of morality or test tube insect, Issues of Legitimacy, Issues of Surrogacy, Issues of Health Risk to baby, ICMR Guidelines for IVF Clinics, Determination of states of the Child, IVF – ET, Invitro Culture Media.
2. **DNA Legislation:** DNA Profiling, Evidence Examination, Importance of Profiling in forensic Science, DNA Profiling V/S Finger Prints, Identifying victims using DNA., U/S-53 Cr.PC: Examination of accused, does not apply to complaint case, suggestion for legal reforms in effective application of DNA technology in our country.
3. **Narco Analysis:** Concept in view of constitutional law & Human Rights, Efficacy

4. **Polygraph Test:** Polygraph Test, Limitation of Polygraph text, Utility: in investigation & Judicial Process, Admissibility of Polygraph Test.

Paper 9.2 COMPARATIVE CRIMINAL PROCEDURE

Teaching Hrs.: L-04

Exam Hrs. – 3

Total : 100

Marks : Internal 30 External 70

Module : 1

Introduction to Criminal Justice Process, Historical Evolution of Criminal Justice System, Common Law System v. Civil Law System, Adversarial model, Inquisitorial model, Hierarchy of criminal courts and their jurisdiction, Nyay Panchayat in India., Prosecutors in India and their counterparts.

Module : 2

Role of the Police and its powers, Role of the Police and its obligations under the Cr.P.C, Police Powers in England- Power of Stop, entry, search, arrest and detentio, Police Powers in the USA-From 4th Amendment to 14th Amendment to the US Constitution. Rights of the arrestee. Power to stop, frisk, search, seizure and arrest, Policing in Continental Countries.

Module : 3

Investigation, Charging Process, Prosecution of Case, Framing of Charge under the Cr.P.C, Charging Process and case management under the UK system, Prosecution of a Criminal case, Charging Process in the USA. Role of the prosecutor and charging decision, Criminal Investigation in Continental Countries.

Module : 4

Fair Trial Procedure and Stay of Prosecution, Concept of Fair Trial under the Indian Constitution, Stay of proceedings under the Cr.P.C, Abuse of Process and Stay of Prosecution under the UK System, Fair Trial Principles under US Constitution. Pre-Trial Motions.

Module : 5

Trial Procedure, Trial Process in India under the Cr.P.C, System of Courts in UK, Trial Process in UK, Jury system, Trial Process in US. Preliminary hearing, Grand Jury hearing, Arraignment.

Paper 9.3 CRIMINAL PSYCHOLOGY

Teaching Hrs. : L-04

Exam Hrs. – 3

Total : 100

Marks : Internal 30 External 70

Module : 1 Psychology of Criminal Behaviour

Definition, nature and scope of criminal psychology.

Theories of Crime:

- a. Psychological Theories b. Social Theories c. Personality stress behaviour

Crime trends in India, Prevention of crime

Module : 2 Psychological Disorders and Criminal Behaviour

Psychopath–Juvenile delinquency, Mentally ill offenders, Serial killers & Rampage killers, Sex offenders.

Module : 3 Police Psychology

Criminal competencies, Psychological autopsy–and manner of death, Psychological profiling and personality of criminals in the context of Law, Future predictions of criminal behavior on the basis of criminal profiling.

Module : 4 Violent Criminal behavior and Drug related crime

Psychology of aggression and violence, Terrorism – Domestic and international, Drugs and Crime, Cyber crimes – defined governed, Cyber- terrorism, bullying, harassment, stalking.

Module : 5 Selection & Training of law enforcement personnel

Selection of the police officers: Pre-employment selection, fitness for duty evaluation, psychometric tools, Training of the police officers: Interactions with the mentally ill, domestic disturbance, Hostage negotiations, Personality of Police officers, Job stress and discretion.

Paper 9.4 Information Technology Offences

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

Introduction Historical development – Classification of cybercrime – Conventional crime vs. cybercrime Causes for cybercrime – Trends in cybercrime worldwide.

Module : 2

Typology of Cybercrime Hacking, cracking, DoS–Viruses, worms, malwares, bombs, email bombing, data diddling, salami attacks, phishing, stenography, cyber stalking, spoofing, pornography, defamation, computer vandalism, cyber terrorism, cyber warfare, crime in social media, social engineering, credit card frauds and financial frauds, telecom frauds.

Module : 3

Cybercrime Investigation Cyber/Digital forensics–Cyber forensics life cycle–Chain of custody– Search, seizure and preservation of digital evidence–Data privacy issues–Cryptography–Cybercrime cells–Cyber appellate authorities.

Module : 4

Cyber Laws Cyber laws in India – Information Technology (amended) Act, 2008 – Indian Evidence Act, 1872 – Digital evidence – Cyber laws across the globe – UNCITRAL

Module : 5

Cybercrime and Counter-measures Information security – Best information security practices in India and other countries – E-mail security – Web application security, malware security, network security, cloud security and wireless security.

Select Bibliography:

- Atkins, D., Buis, P., Hare, C., et al. (1997). Internet security professional reference (2nd ed.). Indianapolis, IN: New Riders Pub.
- Goodman, S., & Soafer, A.(ed.) (2002). The Transnational Dimensions of cybercrime. Washington: Hoover institution Press.
- Marcella, A.J., & Greenfield, R.S. (ed.) (2002). Cyber Forensics: A field manual for calculating, examining and preserving evidence of computer crimes. Boca Raton, Florida: Auerbach.
- Reyes, A. (2007). Cybercrime investigations bridging the gaps between security professionals, law enforcement and prosecutors. Rockland, MA: Syngress Pub.
- Walker, C. (1998). Crime, criminal justice and the Internet. London: Sweet & Maxwell.

Paper 9.5 Internship

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 100

This part will require the students to be attached with practicing lawyers with a minimum of ten years standing at the Bar. A minimum of two hours are to be spent daily with the lawyer observing client dealings, drafting, conducting fact investigations, etc., for at least twenty-four days in the semester. At the end of internship, a certificate confirming the student's attendance at the lawyers office will have to be produced.

Select Bibliography:

- NRM Menon (ed.) Clinical Legal Education (1998)
- Don Peters, The Joy of Lawyering: Readings for Civil Clinic (1996)
- B.Malik, The Art of a Lawyer (9th Ed. 1999)
- Steven Lubet, Modern Trial Advocacy: Analysis and Practice (1993)
- Thomas A.Mauet, Trial Techniques (1996)
- Thomas A.Mauet, Pre- trial (1995)
- Inns of School of Law, Advocacy (1999/2000)
- Inns of School of Law, Case Preparation (1999/2000)

B.A. LL.B. 5 YEAR INTEGRATED

(HONOURS COURSE FOR SESSION 2022-23)

5th Year (Semester –X)

Paper 10.1 Offences against Child and Juvenile Offence

Teaching Hrs.: L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

Introduction: Criminal Justice System (CJS): Meaning, purpose and social relevance - Legislative process and CJS- Historical evolution–Overview of criminal justice sectors National and International perspective - Accusatorial and inquisitorial systems of Criminal Justice System - Co-ordination in CJS.

Module : 2

Police System: Organization set up of Indian police in modern society - Objective of police system: Maintenance of law and order, investigation of crimes, protection of life, production of property rights, prevention of crime - Method of interrogation, role of counselling in interrogation - Functions of Police Organizations interface with the community, executive, prosecution and judiciary - Police image.

Module : 3

Judicial System: Importance of judicial system in modern society - Judicial administration in India. Presiding Officer, Prosecutor and Defence Counsel - Salient feature of India Judicial System : Independence, public and fair trial - Fundamental elements in judicial functioning: Due process, speedy trials and access to justice - Alternative Dispute Redressal System (ADRS): Mediation, Lok Adalat, Village Nyaya Panchayat - Judicial Administration: Modernization and reforms.

Module : 4

Juvenile Justice System: Challenges faced by children- Child Rights as per the UNCRC 1989 - National Legislative measures for protection of Child Rights: Commission for Protection of Child Rights Act, 2005, sexual harassment of women at work place (Prevention, Prohibition and Redressal) Act, 2013, the Right of Children for free and compulsory Education, Act 2009., JJ Act 2000 and Amended Act 2006, Immoral Traffic Prevention Act 1956 - Institutional Care and Support for juveniles/children - The role of police with special reference to children – Special Juvenile Police Unit (SJPU), Child Welfare Officer - Role of parents, teachers, doctors and welfare organizations in child upbringing and safety.

Module : 5

Youth in Conflict with Law, Violence & Intervention Strategies Youth deviance-recent trends-pornography, MMS, Sexual Harassment - Youth violence-state response-state violence - Juvenile gangs, status offence - Youth alienation and crimes - Domestic Prevention Act, violence against elderly people, violence against disabled - Intervention strategies: Counselling, restoration/repatriation of Children, after-care, adoption, foster care & sponsorship, issues and problems in reintegration.

Select Bibliography:

- Qadri, S.M.A. (2005). Criminology, Eastern Book Company.
- Gupta M.C., (2001). Child Victims of Crime, Gyan Publishing House.
- Les John (2002). Crime and Modernity, New Delhi: Sage Publications.
- Hagan, Frank (2008). Introduction to Criminology, Sage Publication Inc.
- Williams, Katherine (2004). Textbook on Criminology, Universal Law Publications.
- Reports by the International Conventions and UN Declaration.
- Shweta (2009). Crime, Justice and Society, MD Publications.
- Schmalleges Frank (1999). Criminal Justice Today, New Jersey: Prentice Hall.
- Justice Malimath Committee on Criminal Justice Reforms, Universal Law Publication (2003).
- Padmanabhaiah, K. (2001). Committee Police Reforms.
- Banerjee, D. (2005). Central Police Organizations Part I and Part II, Allied Publishers Pvt. Ltd.
- Reisd, Se Titus (2006). Crime and Criminology. Mc. Graw Hill Publishers.

Paper 10.2 Women and Criminal law

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

Basic concepts: Sex and Gender; Femininity and masculinity; Patriarchy; Cultural Images of Women; Negative Stereotypes of Women.

Module : 2

Feminism: Meaning and emergence of feminism; Types of feminism; Post-feminism and anti-feminism.

Module : 3

Domestic Violence Act, 2005, The Pre-Conception and Pre-Natal Diagnostic Techniques Act, 1994

Module : 4

The Commission of Sati (Prevention) Act, 1987, The Dowry Prohibition Act, 1961, The Immoral Traffic (Prevention) Act, 1956

Module : 5

Sexual harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013

The Prohibition of Child Marriage Act, 2006, Matrimonial offences under the Indian Penal Code, 1860

Select Bibliography:

- Bhasin, Kamla & Nighat Said Khan. 1986. Some Questions on Feminism and its relevance in South Asia. Raj Press. New Delhi.
- Bhasin, Kamla. 2000. Understanding Gender. Kali for Women. New Delhi.
- Bhasin, Kamla. 2004. Exploring Masculinity. Kali for Women. New Delhi.
- Bhasin, Kamla. 2004. What is Patriarchy? 5. Chacko, Shubha. 2001. Changing the Stream: Backgrounder on the Women's Movement in India. CED. Bangalore.
- Freedman, Jane. 2002. Feminism. Viva Books. New Delhi.
- John, E Mary. 2004. 'Gender and Development in India, 1970-90's: some reflections on the constitutive role of context' (ed.) Chaudhuri, Maitrayee. Feminism in India, New Delhi: Kali for women.
- Kabir, Naila. 1995. 'Empowerment from below: Learning from the grassroots'. Pg 223-265. (Ed) Kabir, Naila. Reversed Realities: Gender Hierarchies in Development Thought. New Delhi: Kali for women.
- Sexual Harassment at the workplace – A Guide. Sakshi, New Delhi.
- Saheli 1981-2006. 2006. New Delhi: Saheli Publication.

Paper 10.3 Criminal Sociology

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

Introduction: Concept of Crime: Meaning; Causes of Crime.

Module : 2

Sociological Explanation of Criminal Behaviour: Theory of Differential association; Theory of delinquent sub-culture; Anomie Theory; Labelling Theory.

Module : 3

White Collar Crime: Meaning and nature of white collar crime; Genesis of white collar crime; Scope of white collar crime; Preventive measures.

Module : 4

Punishment and correctional methods: Punishment Theories: Retributive, Deterrent, Reformatory; Correctional methods: Prison based, community based; Probation, Parole, Open Prison.

Module : 5

Offences relating to marriage & Offences relating to Religion.

Select Bibliography:

- Ratanlal Dhiraj lal, 1860. The Indian Penal Code: Lexis-Nexis
- Russell, William, 1964. Crime: Vol. I & II, London: Stevens and sons.
- Tapas K Banarjee, 1963. Background to Indian Criminal Law, Kolkata: Cambray.

- John Lewiss Gillim 1945. Criminology and Penology, New York: Greenwood Press
- J.P. Sirohi : Criminology and Criminal Administration, Allahabad Law agency
- Criminal Procedure Code 1978
- Teeters Negley and Harvey Elnar Barnes, 1959. New Horizons in Criminology, New Delhi: Prentice Hall of India.
- Sutherland Edwin H. and Donald R. Cressey, 1968. Principles of Criminology

Paper 10.4 Penology and Victmology

Teaching Hrs. : L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 30 External 70

Module : 1

Origin and evolution of Punishment; Control of Crime: Police and Law courts, Prison system, Re-socialization of the offender, Rehabilitation of discharged prisoners in the administration of Criminal justice, prevention of crime delinquency.

Module : 2

Punishment, Relationship between Criminology and Penology; Theories of Punishment: Expiatory, Preventive and reformative and purposes of punishment.

Penal Science in India: History of Punishment, Pre-classical School, Neoclassical, Positive School. Reformers, Clinical School and multiple causation approach.

Module : 3

Miscellaneous: modes of treatment of offenders, corporeal punishment, Transportation of criminals, Capital punishment, imprisonment, reactionary treatment, parole, compensation, admonition, sex and adolescent offenders, indeterminate Sentences, Borstal School, Criminal procedural Jurisprudence. **Constitutional Guarantees:** Principles of natural Justice as applicable in procedural law, Protection to arrested persons. Under-trials, detinue and convicted persons. Double jeopardy, self-in-crimination and right to life and legal aid.

Module : 4

Meaning and Definitions of Victim; Classification of Victims ; Conceptual aspect of Victimology; Theories of Victimology; Victim's Rights under ;

International Conventions: U.N. Declaration of Basic Principles of Justice for Victims of

Crime and Abuse of Power 1985 ; Handbook of Justice for Victims 1999; The Rights to Reparation for victims of Human Rights Violation (1997); UN Convention on Justice and Support for Victims of Crime and Abuse of Power (14 November 2006); Rights of victims under International Criminal Courts

Module : 5

Compensation to victim under the Motor Vehicles Act, 1988, Compensation to Victim under Criminal Procedure Code, 1973, Compensation under Workmen's Compensation Act, 1923, Compensation under Probation of Offenders Act, 1958, Compensation under the Indian Fatal Accidents Act, 1855, Compensation payable under the Railway Act, 1989 (Sec.123)

Leading Cases:

- Gura Singh v. State of Rajasthan, 1984 Cr. LJ 1423 (1428)
- Francis Coralie Mullin v. Union Territory Delhi, AIR 1981 SC. 746.
- R.K. Garg v. Union of India (1981) 133 ITR 239.
- Mithu v. State of Punjab, AIR 1983 SC 473.

Select Bibliography:

- Barnes, H.B. - Teeters - New Horizons in Criminology.
- Vold, G.S. - Theoretical Criminology.
- Pillai, K.S. - Criminology.
- R. Taft, Donald - Criminology.
- Edwin, H. Sutherland and Donald R. Grussey- Principles of Criminology
- Horman Mannheim - Pioneers in Criminology.
- Hon, Barren, Mays - Crime and the Social Structure.
- Ahmed Siddiqui - Criminology - Problems & Perspectives

- Lord Pakenham - Causes of Crime.
- S.Venugopala Rao - Facts of Crime in India.
- Korm, R.R. and Mc Gorble, LW - Criminology and Penology.
- Grunhut - Penal Reforms.
- Mandholm - Criminal Justice and Reconstruction.
- Garden Rose - The Struggle for Penal reform.
- I.L.I. - Essays on Indian Penal Code.
- Ben - Penology - Old and New - Tagore Law Lectures.
- Elliot - conflicting Penal Theories in Statutory in Criminal Law.
- Shamsul Huda - Tagore Law Lectures on Criminal law.
- Lawburse - Crime, Its causes and Remedies.
- Dequires - Modern Theories of Criminology.
- Gillin - Criminology and Penology.
- Deccaria - Crime and Punishment.

Paper 10.5 Court Visit

Teaching Hrs.: L-04

Total : 100

Exam Hrs. – 3

Marks : Internal 100

During the court visits, the students will be required to observe the following stages in cases: Framing of charges / issues

1. Examination-in-Chief
2. Cross-examination
3. Final Arguments

In the lawyer's chamber they are required to do the following:

1. Read minimum of four case files to learn how files are prepared and maintained
2. Learn how to maintain records and accounts
3. Do legal research in at least two cases
4. Draft minimum of two documents in an ongoing case in the chamber
5. Observe client interviewing and counselling with the permission of the lawyer and clients in at least two cases In court visits the students are required to observe the following stages and write reports of their observation in the diary:
 - Framing of charges • Examination-in-Chief • Cross-examination • Final arguments

The students are expected to maintain a diary of their field visits, work done during placement and their observations. In the diary, keep a log of the time spent each day including factual accounting of your experience of what you are doing, seeing and hearing. However, the diary should not be only descriptive of each day but should focus on what you learnt during the day. What were you thinking and feeling about your experiences? What is exciting or surprising? What is bothering you? What are your questions or insights about lawyering and judging? What criticism or praise do you have for the legal system? What else would you like to be taking place in your experience? Please be careful that while writing your accounts you do not reveal any confidential information. The diary should contain two parts:

(a) the factual and analytical information about your internship; and

(b) two legal documents drafted by you during internship. Each part will be evaluated separately for 15 marks each. This part carries a total of 30 marks. The diary is an integral part of the course and you will be evaluated in terms of thoughtfulness and reflections about your learning experience. Be sure to write the journal in your own words even if you went with another class fellow or were in a group and observed the same things. If two students are found to have copied each other's language, both the students will be given a zero for that work. There is no written examination in this course at the end of semester. Students will be evaluated on the basis of their performance in the practical exercises conducted during the classes. The examination in this paper is divided in four parts.

Part A consists of Moot courts focused on appellate advocacy and carries 30 marks; Part B is dedicated to training the students in skills of trial advocacy and carries 30 marks; Part C aims at imparting practical experience to students through internship, court room and Chamber visits. This part carries 30 marks. Ten marks

will be given for participating in 100% classes. Two marks will be deducted for each block of 5% attendance less than 100% to the maximum of minus ten marks. 96-100% attendance = 10 marks 91-95% attendance = 8 marks 86- 90% attendance = 6 marks 81-85% attendance = 4 marks 76-80% attendance = 2 marks Less than 76% = 0 marks

Select Bibliography:

- NRM Menon (ed.) Clinical Legal Education (1998)
- Don Peters, The Joy of Lawyering: Readings for Civil Clinic (1996)
- B.Malik, The Art of a Lawyer (9th Ed. 1999)
- Steven Lubet, Modern Trial Advocacy: Analysis and Practice (1993)
- Thomas A.Mauet, Trial Techniques (1996)
- Thomas A.Mauet, Pre- trial (1995)
- Inns of School of Law, Advocacy (1999/2000)
- Inns of School of Law, Case Preparation (1999/2000)

**M.G.S. UNIVERSITY,
BIKANER**

SYLLABUS

**SCHEME OF Examination
and Syllabus**

**FACULTY OF LAW
LL.B.**

**LL.B. FIRST YEAR EXAMINATION – 2021
LL.B. SECOND YEAR EXAMINATION -2022
LL.B. THIRD YEAR EXAMINATION -2023**

ORDINANCES RELATED TO LL.B. EXAMINATIONS
(Three - Year Course)
(New Scheme)
BACHELOR OF LAWS
EXAMINATIONS - FACULTY OF LAW

LL.B. First Year Exam. 2021

First eight papers of LL.B. First Year Examination shall be of 100 marks and of 3 hours duration and the ninth paper (Practical Paper) shall contain two parts- Theory Paper shall be of 80 marks and 3 hours duration and Practical shall be of 20 marks.

Compulsory Papers:

- 1.1 Contract-I (General Principles of Contract, and Consumer Protection Act, 2019) (as amended up-to date).
- 1.2 Contract-II (Specific Contract, Sale of Goods Act, 1930, Indian Partnership Act, 1932 and Specific Relief Act, 1963)
- 1.3 Law of Torts and Motor Vehicle Act.
- 1.4 Family Law-I (Hindu Law)
- 1.5 Family Law-II (Mohammedan Law)
- 1.6 Constitutional Law of India - I
- 1.7 Constitutional Law of India - II
- 1.8 Environmental Law

Optional Paper (Any One)

- 1.9 (a) Legal and Constitutional History of India.
- 1.9 (b) Rajasthan Local Laws
- 1.9 (c) Criminal Minor Acts

Practical Paper:

- 1.10 Professional Ethics, Lawyer's accountability and Bar-Bench relations.

LL.B. Second Year Exam. 2021

First nine papers of LL.B. Second Year Examination shall be of 100 marks and of 3 hours duration and the tenth paper (Practical Paper) shall contain two parts- Theory Paper shall be of 80 marks and 3 hours duration and Practical shall be of 20 marks.

Compulsory Papers:

- 2.1 Jurisprudence
- 2.2 Law of Crimes
- 2.3 Law relating to Transfer of property & Easement
- 2.4 Company Law
- 2.5 Public International Law
- 2.6 Labour Laws-I
- 2.7 Labour Laws-II
- 2.8 Administrative Law

Optional Paper: (Any One)

- 2.9 (a) Taxation Law
- 2.9 (b) Insurance Law
- 2.9 (c) Banking Law including Negotiable Instrument Act, 1881.

Practical Paper:

- 2.10 Public Interest Lawyering, Legal Aid and Para Legal Services.

LL.B. Third Year Exam 2022

First eight papers of LL.B. Third Year Examination shall be of 100 marks and of 3 hours duration and the ninth and tenth paper(Practical Paper) shall contain two parts- Theory Paper shall be of 80 marks and 3 hours duration and Practical shall be of 20 marks.

Compulsory Papers:

- 3.1 Law of Evidence
- 3.2 The Code of Criminal Procedure, 1973, Juvenile Justice Act, 2015 and Probation of Offenders Act, 1958.
- 3.3 The Code of Civil Procedure, 1908 and Limitation Act, 1963.
- 3.4 Legal Language, Legal Writing including General English and Interpretation of Statutes.
- 3.5 Trust, Equity and Fiduciary Relationship

Optional Paper: (Any One)

- 3.6 (A) Criminology and Penology
- 3.6 (B) Intellectual Property Law
- 3.6 (C) Law of Medicine
- 3.7 Land Laws
- 3.8 Human Rights and Practice

Practical Papers:

- 3.9 Arbitration, Conciliation and alternative Disputes Resolution System.
- 3.10 Drafting, Pleading, Conveyancing and Moot Court trial.

COURSE CONTENTS

Theories Paper (Compulsory and Optional Both)

The syllabus has been divided into five units. Questions will be set from each unit .

The questions paper shall contain three sections. Section A shall contain 10 questions two from each unit of 2 marks each. The Candidate is required to answer all the questions. The answers should not exceed 50 words. Section B shall contain 5 questions one from each unit with internal choice each question shall be of 8 marks. The answers should not exceed 200 words. The candidate is required to answer all the questions. Section C shall contain 5 questions of 20 marks each, one from each unit. The candidate is required to answer any 2 questions. The answers shall not exceed 500 words.

In order to ensure that students do not leave out important portions of the syllabus, examiners shall be free to repeat the question set in the previous examination.

In the case of discrepancies between English and Hindi Version, English Version will prevail.

Acts are to be read with their Amendments

Practical Paper:

The syllabus has been divided into four units. Questions will be set from each unit.

The questions paper shall contain three sections. Section A shall contain 8 questions two from each unit of 2.5 marks each. The Candidate is required to answer all the questions. The answers should not exceed 50 words. Section B shall contain 4 questions one from each unit with internal choice each question shall be of 10 marks. The answers should not exceed 200 words. The candidate is required to answer all the questions. Section C shall contain 4 questions of 20 marks each, one from each unit. The candidate is required to answer any 1 question. The answers shall not exceed 500 words.

In order to ensure that students do not leave out important portions of the syllabus, examiners shall be free to repeat the question set in the previous examination.

In the case of discrepancies between English and Hindi Version, English Version will prevail.

Acts are to be read with their Amendments

LL.B. I year

Paper 1.1 Contracts-I (General Principles of Contract and Consumer Protection Act, 2019)

Max. Marks: 100

Min. Pass Marks: 36

UNIT-I

1. General Principles of Law of Contract

History and nature of contractual obligations.

Agreement and contract: definitions, elements, characteristics and kinds.

Proposal and acceptance - various forms, essential elements, communication and revocation - proposal and invitation to proposal, floating offers, tenders.

Consideration - need, meaning, kinds, essential elements - nudum pactum - Privity of contract and of consideration - its exceptions, adequacy of consideration, present, past and future consideration, unlawful consideration and its effects, views of Law Commission of India on consideration, evaluation of the doctrine of consideration.

UNIT-II

Capacity to Contract: meaning - incapacity to contract - minor's Agreements- definition of 'minor', necessities supplied to a minor, agreements beneficial and detrimental to a minor, affirmation-restitution in cases of minor's agreements, fraud by a minor, agreements made on behalf of a minor, minor's agreements and estoppels, evaluation of the law relating to minor's agreements.

Consent -Free consent - Its need, definition and factors vitiating free consent.

Coercion-definition, essential elements, duress and coercion Various illustrations of coercion, doctrine of economic duress, effect of coercion, Undue Influence-definition, essential elements, parties between whom such influence is presumed, where liability to prove the existence of undue influence, who is to prove it?, Illustrations of undue influence, independent advice, Pardahanashin women, unconscionable bargains, effect of undue influence, misrepresentation - definition, misrepresentation of law and of fact, their effects and illustration, Fraud-definition, essential elements-suggestions falsi-suppressio veri, when does silence amounts to fraud? , Active-concealment, importance of intention.

Mistake - definition, kinds, fundamental error, mistake of law and of fact, their effects, when does a mistake vitiate free consent and when does it not vitiate free consent?

UNIT-III

Legality of objects:

Void and voidable agreements - void, voidable, illegal and unlawful agreements and their effects, Lawful and unlawful considerations and objects, Forbidden by law, Defeating the provision of any law, Fraudulent, Injurious to person or property, Immoral, against public policy,

Void Agreements - Agreements without consideration, Agreements in restraint of marriage, Agreements in restraint of trade, its exceptions - sale of goodwill, section 11 restrictions, exceptions under the partnership Act, trade combinations, exclusive dealing agreements, restraints on employees under agreements of service, Agreements in restraint of legal proceedings - its exceptions, Uncertain agreements, Wagering agreement - its exception.

Discharge of a contract and its various modes.

By performance-conditions of valid tender of performance How? By whom? Where? When? In what manner? Performance of reciprocal promises, time as essence of contract, By breach-anticipatory breach and present breach, Impossibility of performance - specific grounds of frustration-application to leases, theories of frustration, effect of frustration, frustration and restitution, By period of limitation, By agreement - rescission and alteration, their effect, remission and waiver of performance, extension of time - accord and satisfaction.

UNIT-IV

Quasi-contracts or certain relations resembling those created by contract

Remedies in contractual relations;

Damages-kinds, remoteness of damages, ascertainment of damages, Injunction - when granted and when refused, Why? , Refund and restitution, Specific performance - When? Why?

Government as a Contracting Party

Constitutional provisions: government power to contract -procedural requirements.

Standard Form Contracts

Nature, advantages: Unilateral character, principles of protection against the possibility of exploitation, judicial approach to such contracts, exemption clauses, clash between two standard form contracts, Law Commission of India's views.

UNIT-V

Consumer Protection Act - 2019

Leading Cases

- Carlil v. Carbolic Smoke Ball Company (1883) I.Q.B.256.
- Bhagwan Das v. Girdhari Lal & Company. AIR 1966. S.C.543.
- Lalman Sukha v. Gauri Dutt All. IJ (1913) 409.
- Mohri Bibi v. Dharmodas Ghose (1903) I.A.172.
- Indian Medical Association v. V.P. Shantha, AIR 1996 SC 500
- J.J. Merchant v. Shrinath Chaturvedi, AIR 2002 SC 2931

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- Beatesen (ed.), Anson's Law of Contract (27th ed. 1998).
- P.S.Atiya, Introduction to the Law of Contract 1992 reprint (Clarendon Law Series).
- Avtar Singh, Law of Contract (2000) Eastern, Lucknow.
- G.C.Cheshire, and H.S. Fifoot and M.P. Furmston, Law of Contract (1992) ELBS with Butterworths M.Krishnan Nair, Law of Contracts, (1998).
- G.H. Treitel, Law of Contract, Sweet & Maxwell (1997 Reprint).
- R.K. Abichandani, (ed.), Pollock and Mulla on the Indian Contract and the Specific Relief Act (1999), Tripathi.
- Anson, Law of Contract (1998), Universal.
- Avtar Singh - Law of Contract.
- Gurbax Singh - Law of Consumer Protection.
- P. Leela Krishna - Consumer Protection & Legal Contract.
- Avtar Singh, Law of Consumer Protection.

PAPER 1.2

CONTRACT-II (SPECIFIC CONTRACTS, SALE OF GOODS ACT, 1930, INDIAN PARTNERSHIP ACT, 1932 AND SPECIFIC RELIEF ACT, 1963)

Max. Marks: 100

Min. Pass Marks: 36

UNIT- I

Indemnity

The concept, Need for indemnity to facilitate commercial transactions, Methods of creating indemnity obligations, Definition of Indemnity, Nature and extent of liability of the indemnifier, Commencement of liability of the indemnifier, Situations of various types of indemnity creations, Nature of indemnity clauses.

Guarantee

The concept, Definition of guarantee: as distinguished from Indemnity, Basic essentials for a valid guarantee contract, The place of consideration and the criteria for ascertaining the existence of consideration in guarantee contracts, Position of minor and validity of guarantee when minor is the principal debtor, creditor or surety, Continuing guarantee, Nature of surety's liability, Duration and termination of such liability, Illustrative situations of existence of continuing guarantee, Creation and identification of continuing guarantees, Letters of credit and bank guarantees as instances of guarantee transactions, Rights of surety, Position of surety in the eye of law, Various judicial interpretations to protect the surety, Co-surety and manner of sharing liabilities and rights, Extent of surety's liability, Discharge of surety's liability.

UNIT- II

Bailment

Identification of bailment contracts in day today life, Manner of creation of such contracts, Commercial utility of bailment contracts, Definition of bailment, Kinds of bailees, Duties of Bailor and Bailee towards each other, Rights of bailor and bailee, Finder of goods as a bailee, Liability towards the true owner, Obligation to keep the goods safe, Right to dispose off the goods.

Pledge

Pledge: comparison with bailment, Commercial utility of pledge transaction, Definition of pledge transactions, Definition of pledge under the Indian contract Act, Rights of the pawner and pawnee, Pawnee's right of sale as compared to that of an ordinary bailee, Pledge by certain specified persons mentioned in the Indian Contract Act.

UNIT- III

Agency

Identification of different kinds of agency transactions in day to day life in the commercial world, Kinds of agents and agencies, Distinction between agent and servant, Essentials of a agency transaction, Various methods of creation of agency, Delegation, Duties and rights of agent, Scope and extent of agent's authority, Liability of the principal of acts of the agent including misconduct and tort of the agent, Liability of the agent towards the principal, Personal liability towards the parties, Methods of termination of agency contract, Liability of the principal and agent before and after such termination.

Specific relief under Specific Relief Act, 1963

Specific performance of contract, Contract that can be specifically enforced, Persons against whom specific enforcement can be ordered.

Rescission and cancellation, Injunction, Temporary, Perpetual Declaratory orders

UNIT- IV

Sale of Goods

Concept of sale as a contract, Illustrative instances of sale of goods and the nature of such contracts, Essentials of contract of sale, Essential conditions in every contract of sale, Implied terms in contract of sale, The rule of caveat emptor and the exceptions thereto under the Sale of Goods Act, Changing concept of caveat emptor, Effect and meaning of implied warranties in a sale, Transfer of title and passing of risk, Delivery of goods: various rules regarding delivery of goods, Unpaid seller and his rights, Remedies for breach of contract, Concept of nemo dat quad non habet with exceptions.

UNIT- V

Partnership

Nature of partnership: definition, Distinct advantages and disadvantages vis-a-vis partnership and private limited company, Mutual relationship between partners, Authority of partners, Admission of partners, Outgoing of partners, Registration of Partnership, Dissolution of Partnership.

Limited Liability Partnership Act, 2008

Leading Cases

- National Bank of India Ltd. v. Sohan Lal, AIR 1962. Punjab 534.
- Amrit Lal Gordhan Lallan v. State Bank of Travancore, AIR 1960 S.C.1432.
- Patnaik & Company v. State of Orissa, AIR 1965 S.C. 1655.
- State of Gujarat v. Maman Mohd., AIR 1967 S.C. 1885.

Select bibliography

- R.K. Abhichandani (ed.), Pollock and Mulla on Contracts and Specific Relief Acts (1999) Tripathi, Bombay.
- Avtar Singh, Contract Act (2000), Eastern, Lucknow.
- Krishnan Nair, Law of Contract, (1999) Orient
- Avtar Singh, Principles of the Law of Sale of Goods and Hire Purchase (1998), Eastern, Lucknow.
- J.P. Verma (ed.), Singh and Gupta, The Law of Partnership in India (1999), Orient Law House, New Delhi.
- A.G.Guest (ed.), Benjamin's Sale of Goods (1992), Sweet & Maxwell.
- Beatson (ed.), Ansons' Law of Contract, (1998), Oxford, London.
- Saharay, h.k., Indian Partnership and Sale of Goods Act (2000), Universal
- Ramnainga, The Sales of Goods Act (1998), Universal
- Dasai S.T. The Law of Partnership in India and Pakistan
- Kapoor N.D. - Mercantile Law (Hindi & English).
- Banerjee, S.C., Law of Specific Relief (1998), Universal.
- Anand and Aiyer, Law of Specific Relief (1999), Universal.

PAPER 1.3

LAW OF TORTS AND MOTOR VEHICLE ACT

Max. Marks: 100

Min. Pass Marks: 36

UNIT-I

Evolution of Law of Torts

England- forms of action - specific remedies from case to case, India - principles of justice equity and good conscience-uncodified character, advantages and disadvantages.

Definition, Nature, Scope and Objects

A wrongful act - violation of duty imposed by law, duty which is owed to people generally (in rem), *damnum sine injuria* and *injuria sine damnum*, Tort distinguished from crime, breach of contract and Quasi Contract, The concept of unliquidated damages, Changing scope of law of torts : expanding character of duties owed to people generally due to complexities of modern society, Objects - prescribing standards of human conduct, redressal of wrongs by payment of compensation, prescribing unlawful conduct by injunction.

Principles of Liability in Torts

Fault, Wrongful intent, negligence, Liability without fault, Violation of ethical codes, Statutory liability, Place of motive in torts.

UNIT-II

Justification in Tort

Volenti non fit injuria, Necessity, private and public, Plaintiff's default, Act of God, Inevitable accident, Private defence, Statutory authority, Judicial and quasi-judicial acts, Parental and quasi-parental authority.

Extinguishment of liability in certain situations

Actio personalis moritur cum persona - exceptions, Waiver and acquiescence, Release, Accord and satisfaction, Limitation

Standing

Who may sue-aggrieved individual - class action - social action group, Statutes granting standing to certain persons or groups, who may not be sued?

Doctrine of sovereign immunity and its relevance in India

Vicarious Liability

Basic, scope and justification, Express authorization, Ratification, Abetment, Special relationships: Master and servant - arising out of and in the course of employment - who is master? - The control test, who is servant? - Borrowed servant, independent contractor and servant, distinguished - Principal and agent, Corporation and principal officer.

Absolute/Strict liability

The rule in Ryland's v. Fletcher, Liability for harm caused by inherently dangerous industries.

UNIT-III

Torts against persons and personal relations

Assault, battery, mayhem, False imprisonment, Defamation - libel, slander including law relating to privileges, Marital relations, domestic relations, parental relations, master and servant relations, Malicious prosecution, Shortened expectation of life, Nervous shock.

Wrongs affecting property

Trespass to land, trespass ab initio, dispossession, movable property- trespass to goods, detinue, conversion, Torts against business interests- injurious falsehood, misstatements, passing off.

UNIT-IV

Negligence

Basic concepts, Theories of negligence, Standards of care, duty to take care, carelessness, inadvertence, Doctrine of contributory negligence, Res ipsa loquitur and its importance in contemporary law, Liability due to negligence : different professionals, Liability of common carriers for negligence.

Nuisance

Definition, essentials and types, Acts which constitute nuisance obstructions of highway, pollution of air, water, noise, and interference with light and air.

UNIT-V

Legal remedies

Legal remedies, Award of damages - simple, special, punitive, Remoteness of damage - foresee ability and directness, Injunction, Specific restriction of property, Extra-legal remedies - self help, re-entry on land, re-capture of goods, distress damage feasant and abatement of nuisance.

Motor Vehicle Act 1988 as amended up to date and rules under the Act.

Leading Cases

- Ushaben v. Bhagya Laxmi Chitra Mandir. AIR 1970. GUJ. 18.
- Municipal Corpn. of Delhi v. Subhagwanti AIR 1966. S.C. page 1750.0
- Rylands v. Fletcher (1869) IR HT 330.
- Union Carbide Corporation v. Union of India, AIR 1992 SC248
- M.C. Mehta v. Union of India, AIR 1987 SC 965

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- Salmond and Heuston - On the Law of Torts (2000) Universal, Delhi.
- D.D. Basu, The Law of Torts (1982), Kamal, Calcutta.

- B.M. Gandhi, Law of Tort (1987), Eastern, Lucknow
- P.S. Achuthan Pillai, The law of Tort (1994) Eastern, Lucknow.
- Ratanlal & Dhirajlal, The Law of Torts (1997), Universal, Delhi.
- Jai Narayan Pandey- Law of Torts (Hindi)
- R.K. Bangia- Law of Torts (Hindi)
- N.M. Shukla- Law of Torts (Hindi)
- A.K. Dixit Law of Torts & Consumer Protection (Hindi)

PAPER 1.4 Family Law-I (HINDU LAW)

Max. Marks: 100

Min. Pass Marks: 36

UNIT-I

Introduction - Sources, Schools and application, Religious and Charitable Endowment - Essentials of an Endowment, Kinds, Shebait and Mahant

Joint Family - Mitakshara joint family, Mitakshara coparcenary-formation and incidents, Property under Mitakshara law - separate property and coparcenary property, Dayabhaga coparcenary - formation and incidents, Property under Dayabhaga law, Karta of the joint family - his position, powers, privileges and obligations, Alienation of property - separate and coparcenary, Debts - doctrines of pious obligations and antecedent debt, Partition and re-union, Joint Hindu family as a social security institution and impact of Hindu Gains of Learning Act and various tax laws on it, Matrilineal joint family.

UNIT-II

Customary practices and State regulation

Conditions of Hindu Marriage, its ceremonies and Registrations, Void and Voidable marriage, Polygamy, Concubinage, Child marriage, Sati, Dowry

Conversion and its effect on family

Marriage, Adoption, Guardianship, Succession

Matrimonial Remedies

Non-judicial resolution of marital conflicts - (a) Customary dissolution of marriage-unilateral divorce, divorce by mutual consent and other modes of dissolution, Judicial resolution of marital conflicts : the family court, Nullity of marriage, Option of puberty, Restitution of conjugal rights, Judicial separation, Desertion : a ground for matrimonial relief, Cruelty : a ground for matrimonial relief, Adultery : a ground for matrimonial relief, Other grounds for matrimonial relief, Divorce by mutual consent under: Hindu Marriage Act, 1955: Bar to matrimonial relief: Doctrine of strict proof, Taking advantage of one's own wrong or disability, Accessory, Connivance, Collusion, Condonation, Improper or unnecessary delay, Residuary clause - no other legal ground exists for refusing the matrimonial relief.

UNIT-III

Inheritance

Historical perspective of traditional Hindu law as a background to the study of Hindu Succession Act, 1956, Succession to property of a Hindu male dying intestate under the provisions of Hindu Succession Act, 1956, Devolution of interest in Mitakshara coparcenary with reference to the provisions of Hindu Succession Act, 1956, Succession to property of Hindu Succession Act, 1956, Disqualification relating to succession, General rules of succession.

The Hindu Succession Act, 1956: Succession to the property of a Hindu male. Succession to interest in coparcenary property, property of a Hindu female, Succession to the property of a Hindu female, General rules and disqualifications of succession, Escheat

UNIT-IV

Alimony and maintenance

Maintenance of neglected wives, divorced wives, minor children, disabled children, and parents who are unable to support themselves; provisions under the code of Criminal Procedure, 1973, Alimony and maintenance as an independent remedy: a review under personal law, need for reforming the law, Alimony and maintenance as an ancillary relief.

Child and the Family

Legitimacy, Adoption, Custody, maintenance and education, Guardianship and parental rights - welfare of the child principle

The Hindu Adoption and Maintenance Act, 1956: Requisites of valid adoption, Capacity to take in adoption, capacity to give 'in' adoption, persons who may be adopted, other conditions for a valid adoption. Effects of adoption, Miscellaneous provision of adoption.

Maintenance of wife, children and parents, Maintenance of widowed daughter- in law, Dependents and their maintenance. Amount of maintenance, miscellaneous provisions of maintenance.

UNIT-V

The Hindu Minority and Guardianship Act, 1956: Natural guardians and their powers. Testamentary guardians and their powers, de facto guardian general provisions of guardianship

Partition: Meaning, property for partition, persons entitled to claim partition and allotment of shares, partition how effected, Determination of Share, Reopening of partition. Re-union, Debts-Doctrine of pious obligation. Antecedent Debts

Family and its changing patterns

New emerging trends, Attenuation of family ties, Working women and their impact on spousal relationship: composition of family, status and role of women, New property concepts, such as skill and job as new forms of property, Factors affecting the family: demographic, environmental, religious and legislative processes of social change in India: sanskritization, westernization, secularization, universalization, parochialization, modernization, industrialization and urbanization.

Settlement of spousal property

Need for development of law

Establishment of Family Courts

Constitution, power and functions, Administration of gender justice

Uniform Civil Code - need for

Religious pluralism and its implications, Connotations of the directive contained in Article 44 of the Constitution, Impediments to the formulation of the Uniform Civil Code, The idea of Optional Uniform Civil Code.

Leading Cases

- Shastri Yagna Purushdasji v. Muldas, AIR 1966 S.C. 1153.
- Hanooman Prasad v. Mussamat Babooee Mandraj Kunwaree (1856) 6 M.I.A. 305.
- Gita Hariharan v. Reserve Bank of India, AIR 1999 S.C. 1149.
- Bipin Chander v. Prabhavati, AIR 1957 S.C. 176.
- Dr.N.G. Dastane v. Sucheta Dastane, AIR 1975 S.C. 1534.

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- Paras Diwan, Law of Intestate and Testamentary Succession (1998), Universal.
- Basu, N.D., Law of Succession (2000), Universal.
- Kusem, Marriage and Divorce Law Manual (2000) Universal.
- Manchanda, S.C., Law and Practice of Divorce in India (2000) Universal.
- P.V.Kane, History of Dharmasastras Vol.2 pt.1 at 624-632 (1974).
- A.Kuppuswami (ed.) Mayne's Hindu Law and Usage Ch.4(1986).
- B.Sivaramayys, Inequalities and the Law, (1985).
- K.C.Daiya, "Population control through family planning in India, "Indian Journal of Legal Studies, 85 (1979).
- J.D.M. Derrett, Hindu Law : Past and Present.
- J.D.M. Derrett, Death of Marriage Law.
- J.D.M. Derret, A Critique of Modern Hindu Law, (1970).
- Paras Diwan, Hindu Law (1985).
- S.T.Desai (ed.) Mulla's Principles of Hindu Law, (1998) - Butterworths-India.
- Paras Diwan, Family Law: Law of Marriage and Divorce in India, (1984).
- A.M.Bhattachargee, Hindu Law and the Constitution (1994) Eastern Law House, Calcutta.

- Paras Diwan, Law of Adoption, Ministry, Guardianship and Custody (2000), Universal.
- Paras Deewan- Hindu Law (Hindi)
- U.P.D. Kesri- Hindu Law (Hindi)

PAPER 1.5. Family Law - II (Mohammedan Law)

Max. Marks: 100

Min. Pass Marks: 36

UNIT-I

Evolution and application of Law

Origin, Development, Sources, Schools, Application, Interpretation, conversion

Marriage

Nature of marriage, Essentials of marriage, Khyar-ul-bulug, Iddat, Khilwat-us-sahih
Matrimonial Stipulations, Kinds of marriages, Effects of marriages

UNIT-II

Mahar (Dower)

Meaning, Nature, Kinds of Dower, Objects of Dower, Subject matter of Dower
Wife's right on non-payment of dower.

Dissolution of marriage Historical background, Talaq, Various kinds of Talaq
Sec.2 of the Dissolution of Muslim Marriage Act, 1939, Legal Effect of Divorce.

UNIT-III

Pre-emption (Haq Shufa)

Historical background of law, Meaning, Nature of Pre-emption, Classification of Pre-emption, Essential formalities. Right of Pre-emption when there is conflict of laws. Subject matter of pre-emption, Legal effect of pre-emption, Devices for evading pre-emption.

Gift (Hiba)

Meaning, Requisites of valid gift., Gift of musha, Conditional and future gift.
Life estate and life interest, Hiba-bil-ewaj, Hiba-ba-shart-ul-ewaj.

UNIT-IV

Will (Vasiyat) Competency of testator and legatee., Valid subject of will., Testamentary limitation., Formalities of a will., Abatement of Legacy.

Legitimacy and Acknowledgement

Legitimacy and Legitimation, Presumption of Legitimacy under Muslim Law.
Presumption of Legitimacy under Sec.112 of the Indian, Evidence Act.
Conditions for valid acknowledgement.

Maintenance Meaning, Persons entitled to maintenance. Principles of maintenance.

Maintenance of Divorced Muslim woman under the Muslim woman (Protection of Right on Divorce) Act 1986 - a critical review. Death Bed Transactions , Meaning of Marz-ul-maut., Effect on Transactions during Marz-ul-maut.

UNIT-V

Waqf Meaning of waqf., Essentials of waqf. Kinds of waqf, Beneficiaries of waqf. Formalities for creating waqf. , Waqf of masha. Administration of waqf. Mutawalli - Appointment, function, role, power, removal. Various muslim religious institutions. The waqf validating Act, 1913.

Inheritance General Principles of Law of inheritance., Classification of heirs under Hanafi and their shares and distribution of property.

Leading cases

- 13.1 Maina Bibi v. Choudhary Vakil Anmad (1925) 52 La.145.
- 13.2 Habibur Rahman v. Altaf Ali (1921) 481. A.114.
- 13.3 Monshee Bazul-ul-Raheem v. Luteefutoon - Nissa (1861) 8 MIA. 379.
- 13.4 Abdul Fata v. Russmoy Chaudhary (1894) 2ZIA76.
- 13.5 Mohd. Ahmad Khan v. Shah Bano Begum AIR 1985 S.C. 945.

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1. Fyzee, Muhammedan Law.
2. Mulla, Principles of Mohammedan Law.
3. A.M. Bhattacharygee, Muslim Law and the constitution.
4. Prof. B.L.Verma, Islamic law.
5. Dr. D.S. Thalore, Muslim Law, UBH Jaipur
6. Akil Ahamed - Muslim Law

PAPER 1.6

CONSTITUTIONAL LAW OF INDIA- I

Max. Marks: 100

Min. Pass Marks: 36

Unit -I

Introductory Making of Indian Constitution., Short Title, commencement of the constitution, authoritative text in the Hindi language, Nature and special features of the Indian Constitution. Challenges to Indian Federalism, Preamble, The Union & its territory Citizenship and state

Fundamental Rights: (Article 12 to 18) Concept of Fundamental Rights. Constitutional provisions relating to Fundamental rights. Articles 12 Definition of State, Article 13, Laws Inconsistent with Fundamental Right, Article 14 to 18 Right to Equality

Unit -II

Fundamental Rights: (Article 19 to 24) Right to freedom Article 19-22, Right against exploitation Article 23, 24

The Union Executive The President Election, qualifications, salary and impeachment, Power: Legislative, Executive and dictionary power Constitutional

provision and Vice-President of India, Council of Ministers. Prime Minister-Cabinet system- Collective responsibility, Coalition Government

Unit -III

Fundamental Rights: (Article 25 to 35) Right to freedom of Religion Article 25-28, Cultural and Educational Rights Art 29, 30, Right to Constitution; Doctrine of Eclipse, Doctrine of waiver, Doctrine of severability.

The Union Legislature Lok Sabha, Rajya Sabha, Legislative process privileges of the parliament & state legislature, legislative privileges and fundamental rights.

Judiciary under the Indian Constitution: Judicial independence The Union and State Judiciary - The Supreme Court and High Courts.

Unit -IV

Services under the constitution - Doctrine of Pleasure (Article 310), Protection against arbitrary dismissal, removal or reduction in rank (Article 311) and exceptions to Article 311., Public Service Commission of the Union and the states.

Unit -V

Emergency Meaning and scope, National, State and Financial emergency. Proclamation of Emergency-conditions, effect of emergency on centre-state relations. Emergency and suspension of fundamental rights

Leading cases

- Keshvanand Bharti v. State of Kerala, AIR 1973 S.C.1461
- Maneka Gandhi v. Union of India, AIR 1978 S.C. 597.
- Indra Sawhney v. Union of India, AIR 1993, S.C. 477.
- S.R.Bommai v. Union of India, AIR 1994, S.C. 1918.
- Vishaka v. State of Rajasthan, AIR 1997, S.C. 3014.

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- D.D. Basu, Introduction of the constitution of India, Prentice Hall of India, Delhi.
- H.M.Seervai, Constitution of India, Vol.1-3, Tripathi, Bombay.
- V.N.Shukla, Constitutional law of India, Oxford.
- G.Austin, Indian Constitution : Cornerstone of a Nation.
- M.P. Jain, Indian Constitutional Law, Wadhwa and Company Nagpur.
- Kagzi, The Constitution of India, India Law House, N.Delhi.
- G.N.Pandey- Constitution of India (Hindi)

PAPER 1.7
CONSTITUTIONAL LAW OF INDIA- II

Max. Marks: 100

Min. Pass Marks: 36

Unit –I

Directive Principles of State and Fundamental Duties – (Article 36 to 51A)

Directive Principles - directions for social change -A new social order, Inter-relationship between fundamental rights and directive principles, Fundamental Duties – The need and status in constitutional set-up.

Unit –II

The State Executive: The Governor, The Council of Ministers, Relationship between the Governor and the Council of Ministers.

The State Legislature: Vidhan Sabha, Vidhan Parishad. The Panchyats, The Municipalities

Unit –III

Union and State Relationship: Legislative relationship, Administrative relationship Financial relationship.

Subordinate Judiciary Judges: appointment, removal, transfer and condition of services Judicial review – nature and scope.

Unit –IV

State liability in contracts and Torts: Suits by and against the state. Property Rights (Article 300-A). Freedom of Trade, Commerce and Intercourse

Writes: Habeas Corpus, Certiorari, Mandamus, Quo Warranto, Prohibition

Unit -V

The Amendment of the Constitution: Necessity of Amending provisions in the constitution; Procedure for Amendment. Amendments of fundamental rights.

Judicial review of amendment and the theory of Basic Structure.

Temporary provision with respect of the state of J&K.

Leading cases

Keshvanand Bharti v. State of Kerala, AIR 1973 S.C.1461

Maneka Gandhi v. Union of India, AIR 1978 S.C. 597.

Indra Sawhney v. Union of India, AIR 1993, S.C. 477.

S.R.Bommai v. Union of India, AIR 1994, S.C. 1918.

Vishaka v. State of Rajasthan, AIR 1997, S.C. 3014.

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- H.M.Seervai, Constitution of India, Vol.1-3, Tripathi, Bombay.

- V.N.Shukla, Constitutional law of India, Oxford.

- G.Austin, Indian Constitution : Cornerstone of a Nation.

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- Kagzi, The Constitution of India, India Law House, N.Delhi.
- J.N.Pandey- Constitution of India (English)

PAPER 1.8 ENVIRONMENTAL LAW

Max. Marks: 100

Min. Pass Marks: 36

UNIT-I

Concept of Environment and Pollution - Meaning and contents of environment, Meaning and contents of pollution, Kinds of pollution, Effects of pollution

Legal Control: Historical Perspective - Indian tradition: Dharma of environment, British Raj - Industrial development and exploitation of nature Nuisance - Penal code and procedural codes Environmental Concerns in Modern India

UNIT-II

Constitutional Protection to environment - Constitution making - development and property oriented approach Fundamental Rights and Environment-Rights to clean and healthy environment, environment v. development. Directive principles of state policy and environment Fundamental Duties and environment. Other provisions of the constitution relevant to environment Emerging Principles - polluter pays precautionary principle, public trust doctrine and sustainable development. Public Interest Litigation Judicial Activism Pertaining to Environmental Pollution.

UNIT-III

The Water (Prevention and Control of Pollution) Act, 1974 Application of the Act, Definitions Constitution of central, state and joint boards Powers and functions of the Board , Qualification and disqualification of the members Prevention and control of water pollution and procedure thereof , Funds, account and audit Penalties

The Air (Prevention and Control of pollution) Act, 1981 Application of the Act , Definitions Constitutions of central, State and joint boards Powers and functions of the Board , Qualifications and disqualifications of the members Prevention and control of Air pollution and procedure thereof , Funds, account and audit Penalties

UNIT-IV

Environment Protection Act, 1986 Application of the Act, Definitions, General Powers of the central government including the powers to give directions Prevention and control of environmental pollutions and procedure thereof Penalties

UNIT-V

Noise Pollution Meaning of Noise pollution, Sources of Noise pollution, Effects of Noise pollution, Legal Control

Forests and wild life protection

The Indian Forests Act, 1927 - Salient features of the Act, Applicability, Power to reserve forests, power to declare forests land, powers and functions of forest settlement officer, protected forests, penalties and contraventions.

The Forest (conservation) Act, 1980: Objectives, application and salient features of the Act, definitions, Restrictions on the de-reservation of forests, advisory committee, offences and penalties.

Wild life (Protection) Act, 1972 - Objectives, applicability and salient features of the Act, Authorities, Duties of wild life Advisory Board, Hunting of wild animals, sanctuaries, National Park, Closed areas, central Zoo authority, Trade or commerce in wild animals, Animal articles and trophies, Prevention and detection of offences, penalties.

International Regime UN declaration on right to development, Stockholm, Rio etc. conferences. Green House effect and Ozone depletion Bio-diversity.

Leading Cases

- M.C. Mehta v. Union of India, AIR 1987 SC 965
- M.C. Mehta v. Union of India, AIR 1988 SC 1115
- Vellore citizen's welfare forum v. Union of India, AIR 1996 SC 2715
- Tarun Bharat Sangh, Alwar v. Union of India, AIR 1992 SC514
- A.P. Pollution control Board (II) V/s Prof. M.V. Nayudu, (2001) 2 SCC 62.

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- Aarmin Rosencraz, Environmental Law and policy in India, Oxford.
- R.B. Singh & Suresh Mishra, Environmental Law in India, Concept Publishing Co., New Delhi.
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- Leela Krishan, P, Law and Environment, Eastern, Lucknow
- S.C. Shastri, Environmental Law, Eastern, Lucknow
- S. Shantha Kumar, Introduction to Environmental Law, Wadhwa, Nagpur
- Dr. C.P. Singh, Environmental Law (Hindi)
- Satish Shastri, Noise Pollution (Hindi)
- Anjurdh Prasad - Environmental Law (Hindi)
- Dr. S.K. Saini and Dr. Surendra Singh - Environmental Law (Hindi)

PAPER 1.9 (A) LEGAL AND CONSTITUTIONAL HISTORY

Max. Marks: 100

Min. Pass Marks: 36

Legal History of India

UNIT-I

Judicial Systems in Ancient India Judicial system in ancient India : Hindu period, Ancient Hindu social order and religions philosophy, Administration of justice, Judicial system in medieval India: Muslim period, The Mughal period : judicial system.

Administration of Justice in Bombay, Madras and Calcutta Emergence of the East India Company: development of authority under charters, Trading body to a territorial power : subsequent charters, Administration of justice in Madras from 1639 to 1726, Administration of justice in Bombay 1668-1726, Administration of justice in Calcutta 1619-1726.

The Mayors Court Genesis of the Charter of 1726, Provisions of the charter, working in judicial system, Charter of 1753, Defects of judicial systems.

UNIT- II

Adalat System Grant of Diwani, Execution of Diwani Functions, Judicial plan of 1772, Defects of the plan, New Plan of 1774, Reorganization of adalats in 1780, Reforms of 1781, The first civil code, Reforms in the administrations of criminal justice.

The Regulating Act 1773 Charter of 1774 and the Supreme Court of Calcutta, Some land mark cases: Issue of Raja Nandkumar (1775) : whether a judicial murder?, The Patna cases (1777-79), The Cossijurah case (1779-80), Act of settlement 1781, Major defects, Supreme Courts at Calcutta, Madras and Bombay, Law and administration in the Supreme Court.

UNIT- III

Judicial Reforms Judicial reforms of Cornwallis, Problems of judicial reforms 1793 1833, Impact of reforms by Cornwallis 1793, Reforms of Sir John Shore (1793) Reforms of Lord Wellesley (1798), Reforms of Lord Cornwallis (1805), Reforms of Lord Minto (1807), Lord Hastings' administration of justice (1813), Judicial reforms of Lord Bentick (1828), Defects of the systems.

Growth of Criminal Law.

Growth of personal Law of Hindus and Muslims.

Charter Act 1833.

Growth of Justice, equity and good conscience.

UNIT- IV

Establishment of the High Courts

The Indian High Courts Act 1861 The Government of India Act 1915: other High Courts, Jurisdiction of high courts, Posts constitutional developments.

The Indian Councils Act 1909,

The Government of India Act 1919,

UNIT- V

The Federal Court of India Foundation of the Federal Court, Jurisdiction, Authority of law, Expansion of jurisdiction, Abolition of the Federal Court, An assessment.

Privy Council Jurisdiction, Appeals from India, A unique institution.

The Supreme Court of India Origin, Constitution, Jurisdiction and powers, Doctrine of precedents and the Supreme Court, Recent Changes.

Influence of English Law in India

Prerogative writs in India

Racial discrimination

The Simon Commission and developments up to 1935,

The Government of India Act 1935,

The Cripps Mission,

The Cabinet Mission,

The Indian Independence Act 1947

Leading Cases -

- (i) Raja Nand Kumar case.
- (ii) The Cossijurah Case
- (iii) The Patna Case
- (iv) Kamaluddeen Case

Select Bibliography

- Courtney Ilbert, Government of India (1962)
- Courtney Ilbert, The mechanics of Law Making (1914)
- M.P. Jain, Constitutional Law of India (1987) Tripathi, Bombay
- M.P. Jain, Outlines of Legal History (1998), Tripathi
- M. Rama Jois, Legal and constitutional History of India (1984)(Two volumes)
- A.B. Keith, Constitutional History of India 1600-1936 (1936)
- A.C.Banerjee - The making of Indian Constitution.
- Rankin, G.C. Background to Indian Law (1946)
- V.D. Mahajan - Constitutional History of India.
- V.D. Kulshreshtha, Landmarks in Indian Legal History (1992), Eastern Lukhnow.
- B.S. Sinha - Legal and Constitutional History
- Eric Stakes, The English Utilitarian's and India (1992), Oxford, Delhi.

PAPER 1.9 (B) Rajasthan Local Laws

Max.Marks: 100

Min.Pass Marks: 36

UNIT- I

Rajasthan Panchayati Raj. Act, 1994 Institution, Development, Basic and Wardsabha, Gram Sabha, Panchyatiraj.

UNIT- II

Rajasthan Municipalities Act, 2009

Historical Background, Definitions, Constitution, Election (Sections - 1-37)

UNIT- III

Rajasthan Municipalities Act, 2009 Recognition, Removal etc. Etc. (Sections 38-344)

UNIT-IV

Rajasthan Right to Hearing Act, 2012 Introduction, Complaint, Appeal, Revision etc. Institutions, Power of State Govt. Misc.

UNIT-V

Rajasthan Guaranteed Delivery of Public Service Act, 2011 Background, Development, Appeal, Revision, Providing Service Penalty Action in Good Faith.

PAPER 1.9 (C) Criminal Minor Acts

UNIT-I

Narcotics Drugs Psychotropic Substance Act, 1985- Historical Background, Contribution Purpose, Preliminary, Authorities and officers, National Fund for Control of Drug Abuse, Prohibition, Control and Regulation, Offences and Penalties, Procedure, Forfeiture of Property etc. Punishment.

UNIT-II

SC/ST (Prevention of Atrocities Act, 1989) Preliminary, Historical Background, Role, Purpose, Offenders, Victims, Offences, Punishments etc. Special Courts, Investigation, Rehabilitation.

UNIT-III

Protection of Child from Sexual Offences Act, 2012 – Historical Background, Purpose, Preliminary, Sexual Offences against children, using child for pornographic Purposes and Punishment, Abetment of an Attempt to commit offence, Procedure for Reporting, Procedures for Recording Statement of the Child, Special courts, Procedure and powers, Miscellaneous.

UNIT-IV

I.T. Act., 2000 (A): Special Emphasis on Cyber Crimes. Historical Background, Preliminary Digital Signature, Attribution, Acknowledgement, Dispatch of Electronic Records, Secure Electronic, records and digital signatures, Regulations of Certifying Authorities.

UNIT-V

I.T. Act., 2000 (B): Digital Signature certificates, Duties of Subscribers, penalties and Adjudication, Cyber Regulations Appellate Tribunal, Offences, Network service providers not to be liable in certain case, Miscellaneous cyber crimes

**PAPER 1.10 PROFESSIONAL ETHICS,
LAWYER'S ACCOUNTABILITY
AND BAR - BENCH RELATIONS.**

This paper will consist of following two parts –

Written Paper: 80 marks

Min. Pass Marks: 29

Practical Exam.: 20 marks

Min. Pass Marks: 07

The Practical examination shall be conducted by a committee of 2 examiners. In this committee there shall be one internal and one external examiner. The students have to clear the written paper as well as Viva Voce separately, i.e. i.e. 29 in marks in the written and 7 marks in the viva voce are necessary.

UNIT-I

Basic Postulates of Administration of Justice: Image of justice, Wheels of the chariot of justice, Bench-Judges in the image of justice, Bar-Act, Plead and Dress of Advocate.

Historical Evolution of Legal Profession: Legal Profession in Ancient India, Position of Legal Profession in Muslim Regime, Legal Profession during the British Regime.

Autonomy of Legal Profession Indian Bar Committee, 1923 , Indian Bar Council Act, 1926 , All India Bar Committee, 1951, Unified Bar - The necessity of time., 14th Report of the Law Commission., Advocates Act, 1961., Provisions which strengthen Unified Bar., Organization of Bar on All India Basis, Constitution of Bar Council and Elections., Admission and Disciplinary action., Regulation of Legal Education.

Image/Position of Legal Profession in Society Advocacy is a profession not a business, Legal profession is a noble profession, Deterioration in Image of Legal Profession in Independent India, Role of Lawyers in Society.

UNIT-II

The necessity of the Professional Ethics: The Art of Advocacy, Professional Ethics, Nature of Professional Ethics and the problems of the code of Ethics, Advantages of having codified professional ethics, Professional Ethics - Rules of Conducts.

Bar-Bench Relationship General Conception., Advocates duty to the Court, Duty of Judge towards the Advocate, Duty of the Bar towards the Bench, Grounds of disputes in Bar-Bench Relations, Suggestions to improve Bar-Bench Relations.

UNIT-III

Relationship between an Advocate and his client: Code of conduct, Lawyers-client Relationship, Do's and Don'ts for advocate towards client.

Accountability of lawyers

Professional Ethics and Advocates Duties to colleagues and others: Advocates duty to colleagues, advocates duty to opponents, advocates duty towards witnesses and advocates duty to public, illustrations of other misconduct, disciplinary committee's approach in case of professional or other misconduct.

UNIT-IV

Contempt of Court

Purpose and meaning of contempt of court., Contempt of Court by Judge, lawyers and state., Contempt by Judge, Magistrate or other persons acting judicially. Contempt of Court by Advocates. Contempt of Court by State, Corporate bodies and their officers. Punishment - Nature and Extent. Power of Superior Courts in Contempt cases. Safeguards available in contempt cases.

Authorities and Procedures to deal with professional, misconduct and remedies against their order.

State Bar Council and its disciplinary committee.

The Bar Council of India and its disciplinary committee.

Remedies against the order of punishment.

Quantum of punishment.

Leading Cases

1. In Re Vinay Chandra Mishra.
2. Hikmat Ali Khan v. Ishwar Prasad Arya & others 1997,3SCC 1608
3. P.D. Gupta v. Ram Murti and another. 7 S.C.C. 147 AIR 1998 S.C.283.
4. D.S. Dalal v. State Bank of India and others. AIR 1993 S.C. 1608.
5. Delhi Judicial Services Association, Tis Hazari Court v. State of Gujrat, AIR 1991 S.C. 2176.

Select Bibliography

1. The Bar Council Code of Ethics.
2. The contempt of Court Act.
3. Dr.Anirudh Prasad, Principles of the Ethics of Legal Profession in India.
4. Mamta Rao, Professional Ethics.
5. Raju Ramachandran, Professional Ethics : Changing profession, changing ethics, Butter worths, New Delhi.
6. Dr. Murlidhar Chaturvedi- Proffessional Ethics, Accountabiligy of Lawyers and bench (Hindi)

Practical Exam:

The candidate shall be required to submit in writing the facts, arguments and the principles of law laid down in any two important decisions of the Supreme Court and disciplinary committee of Bar Council of India. The division of marks will be as under :

(1) Record submitted by the student 10 marks

(2) Viva-voce 10 marks

The Viva-voce examination shall be conducted by a committee of 2 persons. In this committee there shall be one internal and one external examiner.

LL.B. SECOND YEAR EXAMINATION

COURSE CONTENTS

Note : Theories Paper (Compulsory and Optional Both)

The syllabus has been divided into five units. Questions will be set from each unit .

The questions paper shall contain three section. Section A shall contain 10 questions two from each unit of 2 marks each. The Candidate is required to answer all the questions. The answers should not exceed 50 words. Section B shall contain 5 questions one from each unit with internal choice each question shall be of 8 marks. The answers should not exceed 200 words. The candidate is required to answer all the questions. Section C shall contain 5 questions of 20 marks each, one from each unit. The candidate is required to answer any 2 questions. The answers shall not exceed 500 words.

In order to ensure that students do not leave out important portions of the syllabus, examiners shall be free to repeat the question set in the previous examination.

In the case of discrepancies between English and Hindi Version, English Version will prevail.

Acts are to be read with their Amendments

Practical Paper:

The syllabus has been divided into four units. Questions will be set from each unit.

The questions paper shall contain three sections. Section A shall contain 8 questions two from each unit of 2.5 marks each. The Candidate is required to answer all the questions. The answers should not exceed 50 words. Section B shall contain 4 questions one from each unit with internal choice each question shall be of 10 marks. The answers should not exceed 200 words. The candidate is required to answer all the questions. Section C shall contain 4 questions of 20 marks each, one from each unit. The candidate is required to answer any 1 question. The answers shall not exceed 500 words.

In order to ensure that students do not leave out important portions of the syllabus, examiners shall be free to repeat the question set in the previous examination.

In the case of discrepancies between English and Hindi Version, English Version will prevail.

Acts are to be read with their Amendments.

PAPER - 2.1 JURISPRUDENCE

Max. Marks: 100

Min. Pass Marks: 36

UNIT- I

Introduction: Meaning, definition, nature, scope and importance of Jurisprudence.

Norms and the normative system: Different types of normative systems, such as of games, language, religious orders, unions, clubs and customary practice. Legal

systems as a normative order: similarities and difference of the legal system with other normative systems. Law: Nature and definition given by different jurists.

UNIT- II

Schools of Jurisprudence: Analytical positivism, Natural Law School, Historical School, Sociological School Economic Interpretation of Law, Realist School.

The Indian Jurisprudence: Origin and its nature, the concept of 'Dharma'

UNIT- III

Purpose of Law: Justice, meaning and kinds, Justice and law: Approaches of different schools; Power of the Supreme Court of India to render complete Justice in a case with special reference to Article 142. Critical studies, Feminist Jurisprudence.

Sources of Law: Customs, legislations, judicial precedent and Juristic writings as a source of law. Concept of Stare decisis, obiter dicta and Ratio decedendi.

UNIT- IV

Persons: Nature of personality, status of the unborn, minor, lunatic, drunken, dead person, idol and mosque; corporate personality- Corporate sole and corporate aggregate; dimensions of the modern legal personality of non-human beings.

Possession: Concept and kinds of possession.

Ownership: The concept, kinds. Relation between possession and ownership.

UNIT- V

Concept of legal rights, its kinds and right-duty correlation.

Title

Property: Concept and kinds of property.

Liability: Conditions required for imposing liability, wrongful act-damnum sine injuria and injuria sine damnum, Causation, mensrea, intention, motive, Malice, negligence and recklessness, Strict and vicarious liability.

Obligation: nature, kinds and sources of obligation.

Procedure: difference between substantive and procedural laws. Evidence-nature and kinds, Theory of Punishment, Administration of Justice, Capital Punishment

Leading Cases

1. Keshavanand Bharti v. State of Kerala, AIR 1973 SC 1461 (Per Mathew J.) - Paras 1617-1620 (Sovereignty) 1685-1698 (Natural Law and Natural rights) 1726-1729 (Roscoe pound and Sociological Jurisprudence) 1738-1751 (Property rights and Social Justice).
2. A.K. Gopalan v. State of Madras, AIR 1950 SC 27 (S.970 paras 18, 19 Per Kania C.J.) Paras 107-109 (Per Patanjali Shastri) Para 192 (Per Mukherji J.) Paras 228 (Per Das J. Natural Law and Positive Law)
3. Maharaja Shree Umed Mills Ltd v. Union of India, AIR 1963 SC 953 Paras 12, 13, 14 (Per SK. Das J.) Concept of Law; Legislative agreements)

4. Jaipur Udyog Ltd v. Income Tax Commissioner, AIR 1965 Raj 162 Paras 12, 13, 14 (Per Tyagi J.) (Sovereignty, Separation of powers and functions).
5. Shrimati Indira Nehru Gandhi v. Raj Narayan, AIR 1975 SC 2299 Paras 219 and 299 (Per Mathew J.) (generally as a property of law.)
6. In Re Article 143 (Keshav Singh) AIR 1965 SC 745 paras 9-17 (Per Sarkar J. Law making by judicial and legislative comity).
7. Bengal Immunity Co. v. State of Bihar, AIR 1955 SC 661 (Precedent)
8. Trilokchand Motichand v. H.B Munshi AIR 1970 SC 898 (Para 4 to 11, per Hidayatulla CJ.) Para 36 per Bhachawat J.; Para 59-63 per Hegde J.). These excerpts illustrate problems and uses of Hohfeld analysis.
9. Menka Gandhi v. Union of India, AIR 1978 SC 597

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1. Salmond: Jurisprudence
2. Dias: Jurisprudence
3. Wayne Morrison: Jurisprudence
4. Julius Stone: The Province and Function of Law
5. Holland: Jurisprudence
6. S.N. Dhyani: Jurisprudence- A Study of Indian Legal Theory
7. N.V. Paranjape: Vidhi Shastra
8. V.D. Mahajan, Jurisprudence and Legal Theory
9. Bodenheimer: Jurisprudence- The Philosophy and Method of Law.
10. Mulla- Hindu Law
11. Mani Tripathi- Jurisprudence (Hindi)

PAPER - 2.2 LAW OF CRIMES

Max. Marks: 100

Min. Pass Marks: 36

UNIT- I

General Introduction- Concept of crime: Its definition, nature and scope. Distinction between crime and other wrongs. Applicability of IPC: Intra and Extra territorial operation. Salient features of the IPC, general explanations.

Elements of criminal liability: Mental elements in crime- mensrea (evil intention), its importance and exceptions. (Trends to fix liability without mensrea). State's power to determine acts or omissions as crime.

Types of Punishment- Death punishment, its impacts and social relevance. Alternative to capital punishment; imprisonment for life with hard labour, simple imprisonment; Forfeiture of property and fine. Discretion of Court in awarding punishment. Minimum punishment in respect of certain offences.

Stages of a crime- mere intention not punishable, preparation, attempt- tests for determining what constitutes attempt- proximity, equivocality and social danger, impossible attempts.

UNIT-II

General Exceptions: Factors negative guilty intention: Mistake of fact not of law; judicial act, accident, necessity, minority and insanity; (Impairment of cognitive faculties, emotional imbalance) medical and legal insanity; Intoxication. Private defence- justification and limits when private defence extends to causing of death to protect body and property.

UNIT-III

Group Liability: Common intention, unlawful assembly and common object. Abetment: instigation, aiding and conspiracy. Mere act of abetment punishable. Provisions relating to criminal conspiracy. Riot and affray.

Offences against the state: waging war against the state and sedition.

Offences against public servant and public justice: Contempt of lawful authority of public servants; giving and fabricating false evidence and aggravated form of the crime.

UNIT-IV

Specific offences against Human Body:

- (i) Culpable homicide, murder, distinction between culpable homicide and murder. Situation justifying treating murder as culpable homicide not amounting to murder- grave and sudden provocation, exceeding right of private defence, public servant exceeding legitimate use of force, death in sudden fight, death caused by consent of the deceased- euthanasia and surgical operation. Death caused of person other than the person intended. Rash and negligent act causing death.
- (ii) Hurt- simple and grievous
- (iii) Wrongful restraint and wrongful confinement
- (iv) Criminal force and assault
- (v) Kidnapping and abduction.

Offences against women:-

- (i) Insulting the modesty of a woman, assault or criminal force with intent to outrage the modesty of a woman.
- (ii) Miscarriage: Causing miscarriage without women's consent and causing death by miscarriage without women's consent.
- (iii) Kidnapping or abducting woman to compel her to marry or force her to illicit intercourse.
- (iv) Buying or selling a minor for purposes of prostitution.
- (v) Rape- custodial rape, gang rape, marital rape, unlawful sexual intercourse.

- (vi) Prevention of immoral traffic and prevention of sati
- (vii) Cruelty by husband or his relative
- (viii) Dowry death
- (ix) Prohibition of indecent representation of women

Protection of Women from Domestic Violence Act, 2005- Definitions, Power and duties of protection of officers and service providers, Application to Magistrate, Protection orders, Residence orders, Custody orders, Compensation orders and Monetary reliefs, Penalty for breach of protection orders by respondent.

UNIT-V

Offences against property- theft, extortion, robbery, dacoity, criminal misappropriation of property, criminal breach of trust, cheating, mischief and criminal trespass

Offences relating to documents: Forgery or making a forged document

Offences relating to marriage: Bigamy, marriage or fraudulently gone through without lawful marriage, adultery, enticing or deceiving a married woman.

Defamation: definition and exceptions

Leading cases:

- 1 Reg v. Govinda IR 1876 1 BOM 342.
- 2 Kedarnath v. State of Bihar AIR 1962 SC 955
- 3 T.D. Vadgama v. State of Gujrat AIR 1973 SC 2313
- 4 Veliji Ragahvji v. State of Maharashtra AIR 1965 SC 1433
- 5 K.N. Nanavati v. State of Maharashtra AIR 1962 SC 605

Select Bibliography

- 1 Dr. Hari Singh Gour- Penal law of India
- 2 Rattan Lal and Dhirajlal: The Indian Penal Code
- 3 P.S. Achuthan Pillai: Criminal law
- 4 B.M. Gandhi: Indian Penal Code
- 5 Prof. K.S.N. Murty & KVS Sarve: Criminal Law
- 6 T. Bhattacharya: Bhartiya Dand Sanhita
7. Rajat Bajal: Law of Protection of Women from Domestic Violence

PAPER - 2.3 PROPERTY LAW INCLUDING TRANSFER OF PROPERTY ACT AND EASEMENT ACT

Max. Marks: 100

Min. Pass Marks: 36

UNIT-I

Jurisprudential control of property: Concept, meaning and kinds of property: Movable and immovable, tangible and intangible property. Intellectual property: copyright, patents, designs and trademarks.

Preliminary: Definition, Essentials of Transfer, Competence of parties, subject matter of transfer, transfer to unborn child, registration of transfer, etc.

General Rules of Transfer: (a) Restraints of alienation absolute or partial, Restraints of free enjoyment, Covenants affecting enjoyment, divesting on insolvency, perpetuities, Future estates, Doctrine of acceleration.

Accumulation of income, exceptions, Covenants and Transfer. General Rules of Transfer
(b) Conditional transfer: Condition precedent, condition subsequent; vested and contingent interest.

UNIT-II

Election, Priority of rights, Notice, Implied transfers by limited owners, transfer of property out of which maintenance claims have to be met, ownership by holding out, ownership by estoppels, feeding the grant by estoppels. Doctrine of Part performance (Ss. 35-53 A) Sale of immovable property (Ss. 54 to 57).

UNIT - III

Mortgage and Charge: Kinds of mortgage, Rights and liabilities of Mortgagor and mortgagee, Priority, marshalling, contribution and subrogation.

UNIT – IV

Exchange, Lease, Gift, Actionable Claims.

UNIT – V

Easements: Indian Easements Act, 1882, Nature, Characteristics, Creation. Essentials of Easements, Imposition, Acquisition, Incidents, Disturbance, Extinction, Suspension and Revival of Easement, Riparian Rights, License, Difference between lease and license.

Leading cases:

- 1 Smt. Shanta Bai v. State of Bombay & Others, AIR 1958 SC 532
- 2 Rajender v. Santa Singh, AIR 1973 SC 2537
- 3 Kreglinger v. New Patagonia Meat and Cold Storage Comp. Ltd (1914) AC 25
- 4 Union of India v. Sharda Mills Ltd, AIR 1973 SC 281
- 5 Nathu Lal v. Phool Chand, AIR 1970 SC 546
- 6 Jumma Masjid v. Deviah AIR 1962 SC 847

Select Bibliography

- 1 Mulla: Transfer of Property Act
- 2 S. Shah: Lectures on Transfer of Property
- 3 Vepa P Sarathi: Law of Transfer of Property
- 4 I.C. Saxena: Transfer of Property
- 5 B.B. Mitra: Transfer of Property
- 6 S.R. Bhansali and Sharma: Sampathi Antaran Adhinyam
- 7 J.N. Kulshrestha: Sampathi Antaran Adhinyam
- 8 S.N. Shukla: Sampathi Antaran Adhinyam

9 G.P. Tripathi: Sampathi Antaran Adhiniyam

10 Dr. R.R. Gupta: Sampathi Antaran Adhiniyam and Sukhadhikar

PAPER - 2.4 COMPANY LAW

Max. Marks: 100

Min. Pass Marks: 36

UNIT- I

General Introduction: Theories of corporate personality, creation and extinction of corporations. Corporations, partnerships and other associations of persons, state corporations, government companies, small scale; cooperative, corporate and joint sectors. Holding and subsidiary companies. Public and private company.

Law relating to Public and Private Companies: Companies Act 2013

Need of company for development, Kinds of Company, formation, registration and incorporation of a company.

UNIT- II

Memorandum of association: various clauses, alteration there in- doctrine of ultra vires

Articles of association: binding force- alteration- its relation with memorandum of association-doctrine of constructive notice and indoor management and exceptions. Promoters-position-duties and liabilities.

UNIT-III

Prospectus: issue, contents, liability for misstatements, statement in lieu of prospectus

Shares: general principles of allotment, statutory restrictions, share certificate- its objects and effects, transfer of shares, procedure for transfer, issue of shares at premium and discount, depository receipts-dematerialized shares (DEMAT). Calls on shares, forfeiture and surrender of shares; lien on shares

Share capital: kinds, alteration and reduction of share capital, further issue of capital, conversion of loans and debentures into capital.

Borrowing powers: charges, mortgages, contract by companies, debenture- meaning, kinds and remedies available to debenture holders.

UNIT-IV

Directors: position, appointment, qualification, vacation of office, removal, resignation, powers and duties of directors. Managing directors and other managerial personnel.

Meetings: kinds, procedure and voting.

Audit and accounts

Dividends: payment, capitalization and profit.

Protection of minority rights

Protection of oppression and mismanagement: who can apply? Powers of the court, company and the central government, Investigation of company affairs.

Reconstruction and amalgamation of company

UNIT-V

Winding up of Company: Winding up-types: By court-grounds-who can apply? Procedure-powers of liquidator-powers of court, consequences of winding up. Voluntary winding up by members and creditors, winding up subject to supervision of courts, payment of liabilities, winding up of unregistered company.

Law and multinational companies-

- (i) International norms for control
- (ii) Foreign exchange management Act, 1999- Joint ventures investment in India, repatriation of project.
- (iii) Collaboration agreements for technology transfer.

Corporate liability:

- (i) Legal liability of companies- civil and criminal
- (ii) Remedies against them civil, criminal and tortious - specific relief Act, writs.

Leading Cases

- 1 Aron Soloman v. Soloman and Co. (1897) AC 22
- 2 Royal British Bank v. Turkund (1856) 119 ER 886
- 3 Bell House Ltd v. City Wall Properties Ltd (1966) SC 2 QB 656
- 4 Bajaj Auto Ltd v. N.K. Farodia & Others, AIR 1971 SC 321
- 5 Tata Engg and Locomotive Co Ltd v. State of Bihar AIR 1965 SC 40
- 6 Seth Mohan Lal v. Grain Chambers Ltd AIR 1968 SC 772
- 7 Vasudev Ram Chandra Shelat v. s Pranolal Jaya Nand Thakur AIR 1974 SC 1728
- 8 Shanti Prasad Jain v. Kalinga Tubes Ltd AIR 1965 SC 1535

Select Bibliography

- 1 Atiya: The companies act, 1956
- 2 Avtar Singh: Company law (English and Hindi)
- 3 L.C.B. Gower: Principles of Modern Company Law
- 4 A. Ramaiya: Guide to the Companies Act
- 5 R.R. Pennigton: Company Law
- 6 S.M. Shah: Lectures on Company Law
- 7 N.V. Paranjape- Company Law (amended upto date)

PAPER - 2.5 PUBLIC INTERNATIONAL LAW

Max. Marks: 100

Min. Pass Marks: 36

UNIT-I

Definition, Historical developments, Nature and Basis of International Law, is International Law a true Law? Weaknesses of International Law Codification and development of International Law, Relation between International Law and State Law,

Sources of International Law, Subjects of International Law, Place of individual in International Law, Nationality, Extradition and Asylum

UNIT-II

States in general, Kinds of States and Non-State entities, Acquisition and loss of State Territory, Territorial water, Continental Shelf, Contiguous zone and exclusive economic zone, Freedom of the High Sea and Piracy Recognition of States and Governments, Recognition of Insurgency and belligerency, *de facto* and *de jure* recognition, State succession, state Jurisdiction, state Responsibility, Intervention

UNIT-III

Diplomatic agents: Counsels, Classification and Functions of diplomatic agents, Privileges and Immunities of diplomatic agents with reference to Vienna Convention on Diplomatic Relation, 1961. **Treaties:** Definition, Basis, classification and formation of treaties. Interpretation and revision of treaties, principles of *jus cogens* and *pacta sunt servanda*, termination of treaties. Vienna Convention on the Law of Treaties. Pacific and compulsive means of settlement of international disputes

International Institution: League of Nations, United Nations. History and formation of United Nations, Organs of United Nations with specific reference to General Assembly, Security Council and International Court of Justice, New International Economic Order and Disarmament. Secretariat, International Criminal Court.

UNIT-IV

War: Its legal character and effects, Enemy character, Armed conflicts and other hostile relations, belligerent Occupation, War Crimes, termination of war and doctrine of *postliminium*, Prize courts, Genocide

The law of Neutrality-Basis of neutrality, Rights and duties of neutral state and belligerent States. Quasi neutrality and U.N. Charter. Right of Angary, Contraband, Blockade, unneutral Service, Right of Visit and Search.

UNIT-V

Human Rights: Introduction, Meaning, Definition & Brief History. The Protection of Human Rights Act 1993 National Human Rights Commission, Human Rights Commission of Rajasthan, Role of Judiciary in Promotion and Protection of Human Rights. Universal Declaration of Human Rights, 1948, Covenant on Civil and Political Rights 1966 and covenant on Economic Social and Cultural Rights, 1966

Leading Cases:-

- 1 United Kingdom v. Norway (Anglo Norwegian fisheries case)
ICJ Report 1951 p. 116
- 2 The Nuremberg judgment, International Military Tribunal,
Nuremberg 1946 AJIL Vol. 41, 1947 p. 172
- 3 In Re Government of India and Mubarak Ali Ahmad 1952 1 II Er 2060
- 4 Khutch Tribunal award case- foreign affairs report volume XVII March 68.

5 Right to passage over Indian territory case ICJ Report 1957 p. 125

Select Bibliography-

- 1 Stark J.G.: An introduction to International Law
- 2 Oppenheim- International Law Vol. I and II
- 3 Grotious : Modern International Law
- 4 Breirly- The Law of Nations
- 5 Nartin Dixon- Textbook on International Law
- 6 Dr. H.O. Agarwal- International Law and Human Rights
- 7 S.K. Kapoor- International Law, Human Rights (English and Hindi)

PAPER - 2.6 LABOUR LAWS- I

Max. Marks: 100

Min. Pass Marks: 36

UNIT -I

Historical perspective of labour:

(i) **Labour through the ages:** slave Labour- guild system division on caste basis labour during feudal days.

(ii) **Labour Capital Conflicts:** Exploitation & Labour profit motive, poor bargaining power, poor working condition, unorganized labour bonded labour, surplus, labour division of labour.

(iii) Transition from exploitation to protection and from status to contract.

UNIT -II

Industrial Dispute Act: Scope and Object definitions, assistance to bipartite settlement, work committee, conciliation officer, authorities for saving disputes, reference power. Provision Relating to Lay-off,

UNIT - III

Trade Unionism:

Trade Union Freedoms: International perspective

The history of trade union movement in India, Right to trade union as part of human right, freedom of association- international norms and the Indian constitution The Trade Union Act, 1926: definitions, registration of trade union, functions of registrar, cancellation of registration and incorporation of registered trade unions. Funds- political and general, rights and liabilities of registered trade union, immunities, office bearers, change of name, amalgamation and dissolution of trade union, penalties.

UNIT -IV

Complete Factories Act, 1948- Definitions, inspectors, provisions regarding health, safety,

Welfare, provision relating to employment of young person, women workers, Annual leave with wages & Penalties.

UNIT -V

Protection of the Weaker Sections of Labour: Tribal labour: need for regulation, unorganized labour like domestic servants- problems and perspectives, bonded labour,

(Regulation & Abolition Act, 1970), Child Labour Prohibition Act, 1986

Leading Cases:-

1. Workmen of Indian Standard Institutions v. Indian Standard Institution AIR 1976 SC 145.
2. Burmah Shell Co v. Burmah Shell Management Staff Association 1970 I FLL J. 590 SC, AIR 1971 SC 922.
3. Workmen of firestone Tyre and Rubber Co. Ltd. v. The Management of Firestone Tyre and Rubber Co. Ltd. AIR 1972 SC 1227.
4. Delhi Cloth and General Mills Co Ltd v. Ludh Budh Singh AIR 1972 SC 1031
5. Jay Engineering Works v. State of West Bengal, AIR 1990 Cal 406
6. Bidi Leaves and Tobacco Merchants Association India and other v. State of Bombay AIR 1962 SC 486
7. Bangalore Water Supply v. A. Rajappa AIR 1978 SC 548
8. Express Newspapers Ltd v. Union of India AIR 1958 SC 578

Select Bibliography-

1. O.P. Malhotra: Law of Industrial Disputes
2. S.C. Srivastava: Social Security and labour laws
3. V.V. Giri: Labour problems in Indian industry
4. R.C. Saxena: Labour problems and social welfare
5. S.N. Mishra: Labour and Industrial Laws
6. Anil Sachdeva: Industrial and Labour Laws
7. K.N. Pillai: Labour and Industrial Laws
8. Ganga Sahai Sharma: Shram Vidhi
9. N.D. Sharma : Shram Vidhi
10. Gopi Krishan Arora : Shram Vidhi

PAPER - 2.7 LABOUR LAWS- II

Max. Marks: 100

Min. Pass Marks: 36

UNIT -I

State regulation of industrial relations-

The Industrial Dispute Act, 1947: Strike and Lockout, Lay off and retrenchment, special provision relation of layoff, public utility services.

Retrenchment and Closure transfer of undertakings, penalties, Change in condition of service during pendency of dispute, unfair labour practices

UNIT -II

Workmen's Compensation Act, 1923: Historical perspective, Constitutionality of the Act; Definitions, Compensation for workmen; commissions: Appointment, function and power; Jurisdiction of civil court, Registration of agreement; Appeals and Power of State Government to make rules.

UNIT - III

Employee' State Insurance Act, 1948 Preliminary, definitions, corporation, standing committee and Medical benefit council; Employee State Insurance fund and purpose for which expenses can be incurred from the fund. Contribution Inspection function and duties; Recovery of contribution; Benefits Adjudication of disputes and claims; penalties; Miscellaneous provision.

UNIT -IV

Payment of Gratuity Act, 1972 Definition; payment of gratuity, forfeiture of gratuity, determination of the amount of gratuity, nomination, rights of the nominees; recovery of gratuity, appointment of inspectors and their powers; penalties, cognizance of offence; protection of action taken in good faith; protection of gratuity.

Maternity Benefit Act, 1961 Definition, Maternity benefits; Right, obligations, Inspectors : appointment, power,, duties, penalties and Miscellaneous provision.

UNIT -V

Remuneration for labour- Theories of wages, concept of wages, components of wages, disparity in wages. The Minimum Wages Act, 1948: objects, definitions, fixation of minimum rates of wages, inspectors, payment of minimum rates of wages, overtime claims. Payment of Wages Act, 1936.

Leading Cases:-

1. Workmen of Indian Standard Institutions v. Indian Standard Institution AIR 1976 SC 145.
2. Burmah Shell Co v. Burmah Shell Management Staff Association 1970 I FLL J. 590 SC, AIR 1971 SC 922.
3. Workmen of firestone Tyre and Rubber Co. Ltd. v. The Management of Firestone Tyre and Rubber Co. Ltd. AIR 1972 SC 1227.
4. Delhi Cloth and General Mills Co Ltd v. Ludh Budh Singh AIR 1972 SC 1031
5. Jay Engineering Works v. State of West Bengal, AIR 1990 Cal 406
6. Bidi Leaves and Tobacco Merchants Association India and other v. State of Bombay AIR 1962 SC 486.
7. Bangalore Water Suppy v. A. Rajappa AIR 1978 SC 548
8. Express Newspapers Ltd v. Union of India AIR 1958 SC 578

Select Bibliography-

1. O.P. Malhotra: Law of Industrial Disputes
2. S.C. Srivastava: Social Security and labour laws
3. V.V. Giri: Labour problems in Indian industry
4. R.C. Saxena: Labour problems and social welfare
5. S.N. Mishra: Labour and Industrial Laws
6. Anil Sachdeva: Industrial and Labour Laws
7. K.N. Pillai: Labour and Industrial Laws
8. Ganga Sahai Sharma: Shram Vidhi
9. N.D. Sharma : Shram Vidhi
10. Gopi Krishan Arora : Shram Vidhi

PAPER - 2.8 ADMINISTRATIVE LAW

Max. Marks: 100

Min. Pass Marks: 36

UNIT-I

Evolution, nature and scope of Administrative Law: from a laissez faire to a social welfare state, evolution of administration as the fourth branch of government, conseil'detate, definition and scope of Administrative Law, relationship between Constitutional Law and Administrative Law, separation of powers and rule of law

Civil services in India: Nature and organization of civil services: from colonial relics to democratic aspiration, powers and functions, accountability and responsiveness: problems and perspective, administrative deviance-corruption, nepotism and mal-administration

UNIT-II

Legislative powers of administration: Necessity for delegation of legislative power, constitutionality of delegated legislation- powers of exclusion, inclusion and power to modify statute, requirement for the validity of delegated legislation. Legislative and judicial control of delegated legislation, sub-delegation of legislative powers. publications of delegated legislation, administrative directions, circulars and policy statements.

UNIT- III

Judicial powers of administration:

- (i) Need for devolution of adjudicatory authority on administration. Administrative tribunals-need, nature, constitution, jurisdiction and procedure. Distinction between quasi-judicial and administrative functions.
- (ii) Principles of natural justice- the right to hearing- essential of hearing process, no man shall be judge in his own cause, no man shall be condemned unheard, reasoned decisions, the right to counsel.

UNIT- IV

Judicial control of administrative action: grounds-jurisdictional error, ultravires, abuse and non exercise of jurisdiction, error apparent on the face of record, violation of principles of natural justice, violation of public policy, unreasonableness and legitimate expectation. Remedies in judicial review, writs, declaratory judgments and injunctions, specific performance and civil suits for compensation.

Administrative discretion: Need for administrative discretion, administrative discretion and rule of law, limitations on exercise of discretion-malafide exercise of discretion, constitutional imperative and use of discretionary authority.

UNIT- V

Contractual and tortious liability of state: Tortious liability, sovereign and non sovereign functions, statutory immunity, act of state, contractual liability of government, government privilege in legal proceedings-state secrets, public interest, transparency and right to information.

Corporation and Public undertakings:- State monopoly, liability of public and private corporations- departmental undertakings, legislative and governmental control, legal remedies, accountability- committee on public undertakings, estimate committee.

Public inquiries and commission inquiry, ombudsman:

Lokpal, Lokayukta, Vigilance Commission, Parliamentary Committees.

Right to Information Act, 2005

Leading cases:

- 1 A.K. Kraipak v. Union of India AIR 1970 SC 150
- 2 In re Delhi Laws Act, AIR 1951 SC 332
- 3 Raj Narayan v. Chairman, Patna Administration Committee Patna AIR 1954 SC 569
- 4 Syed Yaqoob v. Radha Krishnan AIR 1964 SC 477
- 5 Rohtash industries Pvt Ltd v. S.D. Agarwal AIR 1969 SC 707
- 6 State of Karnataka v. Union of India AIR 1978 SC 68

Select Bibliography:

- 1 M.C.J kagzi- The Indian Administrative Law
- 2 I.P. Massey: Administrative Law
- 3 D.D. Basu: Administrative Law
- 4 M.A. Fazal: Judicial control of Administrative action in India, Pakistan and Bangladesh
- 5 Wade: Administrative Law
- 6 S.P. Sathe: Administrative Law
- 7 U.P.D. Kesari: Prashasnic Vidhi
- 8 Jain and Jain- Principles of Administrative Law
- 9 J.J.R. Upadhayay- Prashasnic Vidhi

PAPER - 2.9 (A) TAXATION LAWS

Max. Marks: 100

Min. Pass Marks: 36

UNIT-I

Basic concept: Assessment year, Previous year, Person, Assessee, Income, Agricultural Income, Casual Income, Capital Asset, Charitable purpose, Total Income, Gross Total Income, step system and slab system, Capital and Revenue, Avoidance of tax and tax evasion, Income tax authorities. Residential; status and Tax Incidence – Exemptions and deductions of Income

General Perspective: History of tax law in India, fundamental principles relating to tax laws, concept of tax, nature and characteristics of taxes, distinction between tax and fees, tax and Access, direct and indirect taxes, tax evasion and tax avoidance, scope of taxing powers of parliament, state legislature and local bodies.

UNIT-II

Income Tax Act, 1961, Income under the Head 'Salaries' Income from House Property, Income of other persons included in Assessee's Total income.

UNIT-III

Profits and Gains of Business or Profession, Depreciation allowance, Capital Gains, Income from other sources, Set off and carry forward of losses

UNIT-IV

Return of Income, Assessment and Re-assessment, Assessment of Firms and Partners and Penalties offences and prosecution under this Act, Appeal and revision

UNIT-V

Wealth Tax Act:

Valuation date, Net Wealth, Incidence of Tax, Assets, Assets exempted from Tax Return of Wealth, Assessment, Time limit for completion of assessment

Key Features of The Central Goods And Services Tax Act, 2017

Leading Cases:

- 1 P. Krishana Menon v. CIT, AIR 1956 SC 75
- 2 CIT West Bengal v. Benoy Kumar Saha Roy, AIR 1957 SC 761
- 3 Mala Ram & Sons v. CIT AIR 1956 SC 367
- 4 Pingle Industries Ltd v. CIT AIR 1960 SC 1934
- 5 Banaras Cloth Dealers Syndicate v. Benaras 1964 ITR 50
- 6 CIT v. Kothari (1963) 40 ITR 107 (SC)

Select Bibliography

- 1 Ramesh Sharma, Supreme Court on Direct taxes
- 2 Kanga and Palkiwala, The Law and practice of Income Tax
- 3 R.V. Patel, The Central Sales Tax Act
- 4 S.D. Singh, Principles of Law of Sales Tax
- 5 H.C. Malhotra, Aykar Vidhan Lekha

- 6 Bhagwati Prasad, Ayakar Vidhi
- 7 S. Bhattacharya : Indian Income Tax Law and Practice.
- 8 A.K. Saxena : Law on Income tax in India.
- 9 Nathulal Jain : Ayakar Vidhi.
- 10 Kailash Rai : Ayakar Vidhi.

PAPER - 2.9 (B) INSURANCE LAW

Max. Marks: 100

Min. Pass Marks: 36

UNIT- I

Introduction- definition, nature and history of insurance, concept of insurance and law of contract and law of torts, future of insurance in globalize economy, history and development of insurance in India, insurance regulatory authority- role and functions.

General principles of law of insurance- Contract of insurance- classifications of contract of insurance, nature of various insurance contracts and parties thereto principle of good faith, insurable interest, the risk, the policy-classification of policies- its forms and contents, its commencements, duration, cancellation, alteration, rectification, renewal, conditions of the policy.

UNIT- II

Life Insurance: Nature and scope of life insurance, definition, kinds of life insurance, the policy and formation of a life insurance contract, event insured against life insurance contract, circumstances affecting the risk, amount recoverable under life policy, persons entitled to payment and settlement of claims.

UNIT- III

Marine Insurance: (The Marine Insurance Act, 1963) Nature, scope, classification of marine policies, insurable interest, insurable value, conditions of policy. Voyage-deviations, perils of the sea, partial loss of ship and of freight, salvage, general average, particular charges, measure of indemnity, total valuation, liability to third parties.

Fire insurance: nature of fire insurance contract, non-disclosure and misrepresentation, standard fire policy, proximate cause, claims.

UNIT- IV

Insurance against third party risks: The Motor Vehicle Act 1988-chapter VIII-definitions, abuse, drives and motor vehicles, requirements of policy, statutory contract between insurer and drive rights of third parties, limitation of third party's rights, duty to inform third party, claims tribunal- constitution, functions, applications for compensation-who can apply? Procedure and powers of claims tribunal-its award

UNIT- V

Social insurance in India: important elements in social insurance, its needs, commercial insurance and social insurance. Sickness insurance, Adarkar Scheme, Stack and Rao

scheme for wage earners and others risks covered, maturity and other benefits. Old age, premature death and invalidity insurance or pension insurance, public provident fund, unemployment insurance, social insurance for agricultural and un-organized labourers.

Public liability insurance: the scheme and authorities

Leading cases:

- 1 Glickman v. Lancashire and General Assurance Co. (1925) 2 KB 593
- 2 Johnson v. Marshall (1906) AC 409
- 3 Digby v. General Accident Fire and Life Insurance Co. Ltd. (1943) AC 121
- 4 Minu B. Mehta v. Balakrishna AIR 1977 SC 1248
- 5 Prudential Insurance Co. v. Inland Revenue Commissioner (1904) 2 KB 658.

Select Bibliography

- 1 Singh, B Anand, New Insurance Law
- 2 Sreenivasan, M.N.- Principles of Insurance Law
- 3 Banerjee, Law of Insurance
- 4 Mitra, B.C., Law relating to Marine Insurance
- 5 Srivastava, Blachand: Elements of Insurance
- 6 Dravid and Joshi: Bima Siddhant evam Vyavahar.

PAPER - 2.9 (C) BANKING LAW INCLUDING NEGOTIABLE INSTRUMENT ACT, 1881

Max. Marks: 100

Min. Pass Marks: 36

UNIT- I

Introduction: Banking: definition-common law and statutory law Commercial Banks: functions Agency services General utility services International trading service Information services Systems of banking: unit banking, branch banking, group banking and chain banking, banking companies in India.

UNIT- II

Banks and Customers:

- Customer meaning
- Banker and customer relationship
- Rights and obligations of banks- Right of set off, banker's lien, right to charge interest and commission, obligation to honour customer's cheques.
- Duty- Duty of confidentiality, nature and justification of the duty, exceptions
- Accounts of Customers- Current accounts, deposit accounts, joint accounts, trust accounts.

UNIT- III

Control over Banks: Control by Government and its agencies Need for elimination of systematic risk, avoidance money Laundering, consumer protection, promotion of fair

competition, Account, audit, money lending, re-organization and reconstruction, supervision and winding up. Control by ombudsman Reserve Bank of India (RBI) Act, 1934: definition, functions and powers, supervision and control over the other banks, control over non-banking financial institutions, capital management and business, determination of bank rate policy.

UNIT- IV

Lending by Banks

Principles of good lending, Securities for bank advances- pledge, mortgage, charge, goods or documents of title to goods, life insurance policies as securities, debentures as security, guarantee as security. Contract of guarantee and contract of indemnity, Repayment, interest: rule against penalties. Default and recovery- debt recovery tribunals- constitution and functioning.

Letter of Credit and Demand guarantee

Letter of credit, Basic features Parties to a letter of credit Fundamental principles Demand guarantee- legal character, distinction between irrevocable letter of credit and demand guarantees

UNIT- V

Law relating to negotiable instruments: (Negotiable Instruments Act, 1881)

Negotiable instruments- kinds, Holder and holder in due course, Parties, negotiation, presentment , Discharge from liability, **Dishonour-** civil and criminal liability Duty to honour customer's cheques- conditions, exceptions to the duty to honour cheques Money paid by mistake The collecting banker- liability for conversion, duties, good faith and statutory protection to the collecting banker.

Leading Cases:

- 1 A.B. Miller v. National Bank of India ILR 19 Cal 146
- 2 National Insurance Co. Ltd v. Seema Malhotra (2001) ILRI 543
- 3 Radha Kisan v. Hira Lal AIR (1919) Nag 39
- 4 Maneckji Pestonji Bharucha v. Wadilal Sarabhai AIR 1926 PC 38
- 5 Nawab Major Sir Mohammad Akbar Khan v. Attar Singh AIR 1936 PC 171

Select Bibliography-

- 1 S.N. Gupta, The Banking Law in theory and practices.
- 2 S.N. Gupta, Banks and the consumer protection law.
- 3 Mukherjee, T.K.- Banking Law and Practice.
- 4 Shekhar K.C- Banking theory and practice.
- 5 Kailash Rai- Negotiable Instrument Act.
- 6 Sharma and Sharma- Banking Vidhi.
- 7 Mangilal Sharma: Banking Vidhi Evam Vyavhar

PRACTICAL PAPER
PAPER - 2.10 PUBLIC INTEREST LAWYERING;
LEGAL AID AND PARA LEGAL SERVICES

The paper shall consist of following two parts:

A. WRITTEN PAPER

Max. Marks: 80

Min. Pass Marks: 29

B. PRACTICAL PAPER

Max. Marks: 20 Marks

Min. Pass Marks: 07

The practical exam shall be conducted by a committee of 2 examiners. In this committee there shall be one internal examiner and one external examiner.

A. Written Paper

UNIT-I

Introduction PIL: its origin and meaning Scope and nature of PIL Object of PIL, PIL and Private Interest Litigation

Locus Standi: Principle of locus standi- traditional approach Liberal approach Guidelines for entertaining a PIL Petition by public spirited person or association Misuse of PIL

PIL and enforcement of Fundamental Rights: General Compensation for breach of fundamental rights Compensation for illegal detention Compensation to victim of police atrocities. PIL as a redress to custodial violence cases. PIL and Environmental Law

UNIT- II

Pollution- a curse to mankind

Pollution free environment as a fundamental right

Enforcement of environmental laws through filing PIL

PIL for the enforcement of the rights of weaker sections of the society

For the enforcement of the rights of women

For the enforcement of the rights of children

For the enforcement of the rights of bonded labour

UNIT- III

Legal Aid : Meaning, Nature, Scope, and Development Constitutional provisions; Provision of civil procedure code and code of criminal procedure regarding legal aid The Legal Services Authorities Act and legal aid.

Drafting of PIL petitions and writing of applications for legal aid

UNIT-IV

The Legal Services Authorities Act, 1987 (as amended by the Act of 2002)

The national legal services authority: constitution and functions

State legal services authority: constitution and functions

District legal services authority: Taluk legal services committee, constitution and functions

Lok Adalat: organization, cognizances of cases, award and powers.

Pre litigation, conciliation and settlement

Permanent lok adalat: establishment, cognizance of cases, procedure and award

The Rajasthan State Legal Services Authority Regulations,1999: Legal literacy, legal awareness committee: Constitution and functions of High Court and District Legal awareness committee Organization of legal awareness camps by law schools Role of voluntary organizations

Leading Cases:

1. Bandhua Mukti Morcha v. Union of India AIR 1984 SC 802, (1984) 3 SCC 161
2. Olga Tellis v. Bombay Municipal Corporation (1985) 3 SCC 545, AIR 1986 SC 180
3. Sukdas v. Union Territory of Arunachal Pradesh (1986) 2 SCC 401, AIR 1986 SC 991
4. Sheela Barse v. State of Maharashtra AIR 1983 SC 378

Select Bibliography

1. Dr. S.R. Myneni- Public Interest lawyering legal aid and para legal services
2. Sujan Singh- Legal aid-human right to equality
3. S.S. Sharma- legal assistance to Poor
4. P.N. Bhagwati- legal aid as human right
5. P.N. Bajpayee- Legal aid and the Bar council
6. Sunil Deshtra- lok adalats in India- genesis and functioning
7. Sampat Jain- Public Interst Litigation
8. Dr. Kailash Rai- Janhit Vakalat, vidhik sahyog evam ardh vidhik sevayen.
9. Suresh Bhatia- Nirdhan Vidhik Shayta, Rajasthan Hindi Granth Academy
10. P.M. Bakshi- Public Interest Litigation

B. PRACTICAL PAPER

The candidate shall be required to attend at least two legal aid camps organized by the college. The candidate shall also be required to present a report regarding the problem along with his suggestions.

- (1) Attendance at the legal aid camp and
Submission of report- 10 Marks
- (2) Viva voce- 10 Marks

The Viva-voce examination shall be conducted by a committee of 2 persons. In this committee there shall be one internal examiner and one external examiner.

LL.B. THIRD YEAR EXAMINATION

COURSE CONTENTS

Note: Theories Paper (Compulsory and Optional Both)

The syllabus has been divided into five units. Questions will be set from each unit.

The questions paper shall contain three sections. Section A shall contain 10 questions two from each unit of 2 marks each. The Candidate is required to answer all the questions.

The answers should not exceed 50 words. Section B shall contain 5 questions one from each unit with internal choice each question shall be of 8 marks. The answers should not exceed 200 words. The candidate is required to answer all the questions. Section C shall contain 5 questions of 20 marks each, one from each unit. The candidate is required to answer any 2 questions. The answers shall not exceed 500 words.

In order to ensure that students do not leave out important portions of the syllabus, examiners shall be free to repeat the question set in the previous examination.

In the case of discrepancies between English and Hindi Version, English Version will prevail.

Acts are to be read with their Amendments

Practical Paper:

The syllabus has been divided into four units. Questions will be set from each unit.

The questions paper shall contain three sections. Section A shall contain 8 questions two from each unit of 2.5 marks each. The Candidate is required to answer all the questions. The answers should not exceed 50 words. Section B shall contain 4 questions one from each unit with internal choice each question shall be of 10 marks. The answers should not exceed 200 words. The candidate is required to answer all the questions. Section C shall contain 4 questions of 20 marks each, one from each unit. The candidate is required to answer any 1 question. The answers shall not exceed 500 words.

In order to ensure that students do not leave out important portions of the syllabus, examiners shall be free to repeat the question set in the previous examination.

In the case of discrepancies between English and Hindi Version, English Version will prevail.

Acts are to be read with their Amendments.

3.1 LAW OF EVIDENCE

Max. Marks: 100

Min. Pass Marks : 36

UNIT- I

Preliminary: Application of Indian Evidence Act. Definitions: Court, fact-fact in issue and relevant fact, evidence - meaning and its kinds, proved, disproved, not proved, may presume, shall presume and conclusive proof, Presumptions of fact and law, presumptions regarding documents. Relevancy of facts: Explaining Res-gestae, occasion, cause, effect; motive, intention, preparation, previous and subsequent conduct, introductory and explanatory facts, facts not relevant when become relevant, accidental and incidental facts, Facts which need not be proved, improper admission and rejection of facts.

UNIT-II

Admission and Confession:

- (a) Admission: Definition, whose admission is relevant, relevancy of admission in civil cases, admission is not conclusive proof. Admission and Estoppel.
- (b) Confession: definition, its kinds, confession caused by inducement, threat or promise, confession to police officer, confession in the custody of police, confession to Magistrate, confession by co-accused.
- (c) Difference between admission and confession, Relevancy of statements.
- (d) Dying Declarations- The justification for relevance on dying declarations (Section 32), The judicial standards for appreciation of evidentiary value of dying declarations.

Other Statement by Persons who cannot be called as Witnesses - General Principles, Special problems concerning violation of women's rights in marriage in the law of evidence.

UNIT- III

Statement made under special circumstances

Relevancy of judgement of a court of law

Opinion of third person

Opinion of experts / third person

Relevancy of character

Evidence: Oral evidence, documentary evidence, kinds of documentary evidence, when secondary evidence is relevant. Public and private document. Exclusion of oral evidence by documentary evidence: Application of this principle and its exceptions, ambiguous documents, kinds of ambiguity.

UNIT- IV

Burden of Proof: Meaning, general principles of burden of proof in civil and criminal cases and exceptions to it. When burden of proof shifts, proof of legitimacy of child, proof in dowry deaths and in the matters of rape.

Estoppels: meaning, essentials, nature and its kinds. Competency of witnesses, when a person can be compelled to appear as witness, privileged communications and documents, accomplice, hostile witness.

UNIT- V

Examination of Witnesses: Order of examinations. kinds of examinations. leading question, impeaching the credit of witness, questions which can and which cannot be asked, refreshing the memory of witness, production of documents, Judge's power to put questions and to order production. Effect of improper acceptance or rejection of evidence.

Leading Cases:

1. Nishi Kant Jha v. State of Bihar, AIR 1969 SC 422.

2. Himachal Pradesh Administration v. Om Prakash AIR 1972 SC 975.
3. Sat Paul v. Delhi Administration, AIR 1976 SC 294.
4. Laxmipat Chorasias v. State of Maharashtra, AIR 1968 SC 938.
5. Pakala Narayan Swami v. Emperor, AIR 1939 PC 47.
6. Bhardwade Bhogin Bhan Herrji Bhai v. State of Gujarat AIR 1988 SC 753.
7. RM Malkani v. State of Maharashtra, AIR 1973 2SCR 417

Select Bibliography:

1. Ratan Lal - The law of Evidence
2. Batuklal- Law of Evidence
3. Vepa P. Sarathi - Law of Evidence
4. Raja Ram Yadav- Law of Evidence (Hindi)
5. Shyam Sunder Sharma- Law of Evidence (Hindi)

PAPER - 3.2, THE CODE OF CRIMINAL PROCEDURE, 1973, JUVENILE JUSTICE ACT, 2015 AND PROBATION OF OFFENDERS ACT, 1958.

Max. Marks: 100

Min. Pass Marks: 36

UNIT- I

The Code of Criminal Procedure, 1973

1. Preliminary:

- (a) Object, Extent and definitions (Chapter 1) (b) Duties of Public: (i) To assist to police and Magistrate (ii) To give information about certain offences (Chapter IV Ss. 37 to 40)

- Criminal Courts** (a) Territorial divisions and Classifications (Chapter II, Ss 6 to 25).
(b) Powers (Chapter III, Ss. 26 to 31).

UNIT- II

Pre-Trial Procedure:

- (a) Arrest of Persons (Chapter V)
- (b) Process to compel appearance (Chapter VI).
- (c) Process to compel Production of things (Chapter VII).
- (d) Information to the Police and their powers of Investigation (Chapter XII)
- (e) Bail (Chapter XXXIII).
- (f) Jurisdiction of the courts in inquiries and trials (Chapter XIII); Order to furnish security for keeping peace and good behaviour (ss. 106-124)
- (g) Maintenance of Public Order and Tranquillity (Chapter-X)

Conditions requisite for initiation of proceedings, Complaints to Magistrates, Cognizance of Offence and Charge (Chapter XIV, XV and XVII).

UNIT-III

Types of Trials

- (i) Trial before Court of Session (Chapter XVIII).

- (ii) Trial of Warrant and Summons Cases (Chapter XIX & XX)
- (iii) Summary Trials (Chapter XXI)
- (iv) Maintenance of Wife, Children and Parents (Sec. 125 to 128).

UNIT - IV

Judgment (Chapter XXVII)

- (a) Appeal (Chapter XXIX) Reference and revision (Chapter XXX).
- (b) Misc. Provisions:
 - (i) Irregular proceedings (Chapter XXXV)
 - (ii) Period of Limitation (Chapter XXXVI)
 - (iii) Autrefois acquit and Autrefois convict (Sec 300).
 - (iv) Legal Aid to the accused at State Expenses (S. 303 & 304)
 - (v) Pardon to an accomplice (Sec 306 to 308)
 - (vi) Saving of Inherent powers of High Court (Sec. 482).

UNIT- V

The Juvenile Justice Act, 2015.

Definitions, Competent authorities and institutions for juveniles, Neglected Delinquent Juveniles. Procedures and competent authorities, special offences in respect of juveniles.

Probation of offenders Act, 1958:

Definitions, Power of court to require released offenders after admonition on probation of good conduct, power of Court to require released offenders to pay compensation under twenty one years of age, Variations of conditions of probation, Probation in case of 'Offender' failing to observe conditions of bond, provision as to sureties, Probation Officers, Duties of Probation Officers.

Leading Cases:

1. Tehsildar Singh v. State of UP , AIR 1959 SC. 1012
2. State of U.P. v. Singhara Singh, AIR 1964 SC 359.
3. Nisar Ali v. State of U.P. AIR 1957 SC 336.
4. Purshottam Das Dalmia v. State of West Bengal, AIR 1961 SC. 1589.
5. State of Andhra Pradesh v. Cheemalapati Ganeshwara Rao, AIR 1963 SC 1850
6. Satwant Singh v. State of Punjab, AIR 1960 S.C. 266.

Select Bibliography :

1. Ratan Lal : Criminal Procedure Code.
2. Bhadu Vinod :Criminal Procedure Code (Hindi/English)
3. Kelkar R.V. : Criminal Procedure Code
4. Probation of Offenders Act, 1958.
5. Chakravarti, N.K. - Probation system - in the Administration of Criminal justice.
6. Tiwari Y.K.- CR.P.C (Hindi)
7. Thakker C.K. : Criminal Procedure Code.

8. M.D. Chaturvedi- CR.P.C etc. (Hindi)
9. B.L. Babel- CR.P.C (Hindi)

**PAPER 3.3. THE CODE OF CIVIL PROCEDURE 1908
AND THE LIMITATION ACT, 1963**

Max. Marks: 100

Min. Pass Marks 36

UNIT-I

Definitions, suits in general, suits of civil nature, stay of suit, Res judicata, Res subjudice, Foreign Judgment

UNIT-II

Place of trial, Transfer of suits, Joinder, non-joinder and mis-joinder of parties and causes of action, Service of Summons, Attachment before judgment, Arrest before Judgment. Supplemental proceedings.

UNIT- III

Execution in general: Courts by which decrees may be executed, powers of the court executing the decrees. Transfer of decrees for execution and modes of execution, Stay of execution, Suits in particular cases (Orders xxix to xxxiii). Abatement of suits, summary proceedings.

UNIT- IV

Temporary injunction and Appointment of Receiver, Appeals-Appeals against order and appeal against decree, Review. Revision and Reference, Transfer of cases, Restitutions, Caveat, Inherent powers

UNIT- V

The Limitation Act, 1963 (Omitting the Schedule) Definitions: Purpose, Policy, Scope, Applicant, bond, Defendant, easement, good faith, plaintiff, period of limitation Relationship between limitation, laches, acquiescence, estoppels and res judicata; Limitation of suits, appeals and applications, disability, computation of period of limitation, acknowledgement and part payment, acquisition of ownership by prescription

Leading Cases:

1. Shri Sinha Ramanuja v. Ranga Ramanuja, AIR 1961 SC 1720.
2. Seth Hukamchand v. Maharaja Bahadur Singh AIR 1933 PC 193
3. Narain Bhagwant Rao v. Gopal Vinayak AIR 1960 SC 100
4. Garikapati Veerava v. Subbiah Chaudhary, AIR 1957 SC 540.
5. Deoki Nandan v. Murlidhar, AIR 1957 SC 133.
6. Deity Pattabhirama Swamy v. Hanmayya, AIR 1959 SC 57.
7. S.M. Jakati v. B.M. Borker, AIR 1959 S.C. 282.

Select Bibliography:

1. Mulla- Civil Procedure Code.
2. Singh S.N. - Civil Procedure Code.

3. Sahai on Civil Procedure.
4. Tandon, M.P. - Civil Procedure Code (English & Hindi)
5. Mridula Srivastava - Civil procedure Code (Hindi)
6. A.N. Pandey - Civil Procedure Code (Hindi)
7. C.K. Tekwani- Civil Procedure Code
8. T.P. Tripathi- Civil Procedure Code (Hindi)

**PAPER - 3.4 LEGAL LANGUAGE, LEGAL WRITING INCLUDING
GENERAL ENGLISH AND INTERPRETATION OF STATUTES.**

Max. Marks : 100

Min. Pass Marks:36

UNIT-I

Meaning of interpretation, its distinction from constructions, kinds of interpretation Grammatical and logical, intention of legislation Cardinal principles of interpretation; Plain meaning rule; Golden rule and mischief rule, Aids to interpretation, Internal : Long title, Preamble, Headings, marginal Notes, Non obstante clause, Punctuation, Proviso, External : Parliamentary History; legislative debate, Reports of Committees and Commission, Statement of Objects and Reasons, Historical facts and surrounding circumstance, Dictionary.

UNIT-II

Maxims of interpretation: Ejusdem Generies, Noscitur a Sociis, Utres magis valeat qavam pereat, Statute in pari materia, Operation of statutes, Expiry and repeal of Statutes, Mandatory provisions, Use of Statutes, Construction of Fiscal Statutes Interpretation of Penal Statutes and Interpretation of Constitution, colourable legislation, Doctrine of pith and substance and Doctrine of eclipse, etc.

UNIT-III

Vocabulary: Use of legal phrases and terms; pairs of words; one word substitution

(A) Vocabulary:

List of Legal terms which are relevant for LL.B. students:

Abet	Abstain	Accomplice
Act of God	Actionable	Accused
Adjournment	Adjudication	Admission
Affidavit	Amendment	Appeal
Acquittal	Articles	Assent
Attested	Attornment	Averment
Bail	Bailment	Citation
Clause	Coercion	Code
Cognizable	Confession	Compromise
Consent	Conspiracy	Contempt
Contingent	Contraband	Conviction

Convention	Corporate	Custody
Damages	Decree	Defamation
Defence	Excheat	Estoppel
Eviction	Executive	Ex-parte
Finding	Floating charge	Forma Pauperis
Franchise	Fraud	Frustration
Goodfaith	Guardian	Habeas Corpus.
Hearsay	Homicide	Hypothication
Illegal	Indemnity	Inheritance
Bench	Bill	Bill of attainder
Bill of rights	Blockade	Bonafide
By-laws	Capital Punishment	Charge
Chattles	Justiciable	Legislation
Legitimacy	Liability	Liberty
Licence	Lien	Liquidation
Maintenance	Malafide	Malfeasance
Minor	Misfeasance	Mortgage
Murder	Negligence	Negotiable
Instruments	Neutrality	Non-feasance
Notification	Novation	Nuisance
Oath	Obscene	Offender
Order	Ordinance	Over-rule
De-facto	De Jure	Deposit
Detention	Discretion	Distress
Earnest Money	Enact	Enforceable
Equality	Partition	Perjury
Petition	Plaintiff	Pledge
Preamble	Pre-emption	Prescription
Presumption	Privilege	Privity
Prize	Process	Promissory Note
Proof	Proposal	Prosecution
Proviso	Ratify	Receiver
Redemption	Reference	Regulation
Remand	Remedy	Rent
Repeal	Res Judicata	Respondent
In Limine	Insanity	Institute
Insurance	Interstate	Issue
Judgement	Judicial	Jurisdiction
Justice	Restitution	Rule

Ruling	Schedule	Section
Settlement	Sovereignty	Specific Performance
Stamp duty	Status quo	Statute
Stay of execution	Succession	Summons
Surety	Tenant	Testator
Testatrix	Title	Tort
Trade Mark	Treason	Treaty
Trespass	Trial	Tribunal
Ultra Vires	Undue influence	Usage
Valid	Verdict	Vested
Violate	Vis-major	Void
Voidable	Wager	Waiver
Warrant	Warranty	Will
Writ	Wrong	

UNIT-IV

Latin maxims: Meaning and use in sentences; Comprehension of legal texts; précis writing

LIST OF LATIN MAXIMS:

1. Ab initio (from the beginning)
2. Actio personalis moritur cum persona (Personal actions die with the death of person).
3. Actus Curae neminem gravabit (an act of the court shall prejudice no one).
4. Actus non facit reum, nisi mens sit rea (the act itself Does not constitute guilt unless done with a guilty intent).
5. Actus reus (wrongful act).
6. Ad interim (in the meantime)
7. Ad litem (for the suit).
8. Ad valorem (according to the value).
9. Alibi (Plea of being elsewhere)
10. Amicus curaie (friend of the court)
11. Animus (Intention)
12. Audi alterem partem (hear the other side).
13. Caveat emptor (buyer beware).
14. Consensus ad idem (agreement by two persons upon the same thing in the same sense).
15. Damnum sine injuria (damage without injury).
16. De facto (in fact).
17. De jure (in law).
18. De minimis non curat lex (the law takes no account of trifling matters).
19. Decree nisi (a decree which takes effect after a specified period).
20. Delegatus non potest delegare (a delegated power can not be further delegated).
21. Doli incapax (incapable in malice).

22. Donatio mortis causa (gift by a person on the death bed).
23. Ejusdem generis (of the same category).
24. Eminent domain (the supreme right).
25. Ex-officio (by virtue of an office).
26. Ex-parte (not in the presence of the opposite party).
27. Ex-post-facto (by subsequent act).
28. Factum valet (the fact which cannot be altered).
29. Fait accompli (an accomplished fact).
30. Ignorantia legis neminem excuset (ignorance of law is no excuse).
31. In pari materia (in an analogous case, cause or position).
32. Injuria sine damno (injury without damage)
33. Interest republicae ut sit finis litium (it is in the interest of the republic that there should be an end of law suit).
34. Intra-vires (within the powers)
35. Jus tertii (The right of a third party)
36. Lis pendens (pending suit)
37. Mens rea (a guilty mind)
38. Mesne profits (the profits received by a person on wrongful possession).
39. Nemo det quod non habet (no man can't transfer better title than he has himself).
40. Nemo det bis vexari pro et idem causa (no man be twice vexed for the same cause).
41. Nemo in propria causa judex esse debet (no one ought to be a judge in his own case)
42. Nolle prosequi (to be unwilling to prosecute).
43. Obiter dicta (an opinion of law not necessary to the decision)
44. Onus probandi (the burden of proof)
45. Pacta sunt servanda (pact must be respected)
46. Pendente lite (during litigation)
47. Per Capita (per head)
48. Per incuriam (through inadvertence or carelessness).
49. Per stripes (by stocks)
50. Plenum dominium (full stocks)
51. Pro bono publico (for the public good)
52. Ratio decidendi (grounds for decision, principles of the case).
53. Res geste (connected facts forming the part of the same transaction).
54. Res ipsa loquitur (the thing speaks for itself)
55. Res judicata (a matter already adjudicated upon).
56. Res nullius (an ownerless thing)
57. Rule nisi (a rule or order upon condition that is to become absolute when cause is shown to the contrary).
58. Status quo (existing position)
59. Sub judice (in course of adjudication).

60. Sui juris (one's own right).
61. Suo motu (of ones own accord)
62. Ubi jus ibi remedium (where there is a right, there is a remedy).
63. Ultra vires (beyond the powers of).
64. Volenti non fit unjuria (Risk taken voluntarily is not actionable).

UNIT-V

Writing of legal drafts letters and applications; Essay writing on topics of legal interest;
Translation from Hindi to English and English to Hindi.

Note : Except in a question relating to translation from English to Hindi; answers to Questions asked in unit 3, 4 & 5th are to be given in English.

Select Bibliography:

1. Galnville William : Learning the Law.
2. Wren & Martin : English Grammar.
3. Ganga Sahai Sharma : Fundamental of Legal Writing.
4. Hindi-English Legal glossary : Vidhi Sahitya Prakashan, Ministry of Law, Government of India, New Delhi.
5. David Green : Contemporary English Grammar, structure and composition.
6. Ishtiaque Abidi : Law and Language.
7. Law Lexicon & Legal Maxims by Venketaramanaija.

Leading Cases :

1. Heydon's Case (1584) 3 Co Rep. 7a p. 76: ER 637
2. Bengal Immunity Company v. State of Bihar, AIR 1955 SC 661.
3. Alamgir v. State of Bihar, AIR 1959 SC 436.
4. Inder Singh v. State of Rajasthan, AIR 1957 SC 510.

Select Bibliography:

1. Maxwell - The interpretation of Statutes.
2. Crawford - Statutory constitution.
3. Craies - Statute Law.
4. Swarup - Interpretation of Statutes.
5. Bindra - Interpretation of Statutes.
6. Sarathi - Interpretation of Statutes.
7. Bhattacharya, T., - Interpretation of Statutes (English & Hindi)
8. Radha Gupta- Interpretation of Statutes (Hindi)
9. Anirooudh Prasad : Interpretation of Statues (Hindi)
10. Jain R.L. : Legal Writing and Legal Language.

**PAPER - 3.5 TRUST, EQUITY AND
FIDUCIARY RELATIONS**

Max. Marks: 100

Min. Pass Marks: 36

UNIT- I

Equity: Concept of Equity – Place function Nature of Equity, Origin and Growth of Equity in England-

UNIT- II

Maxims of equity: Equitable rights - Equitable remedies.

UNIT-III

Indian Trust Act, 1882: Definition- Creation of Trusts- Duties and liabilities of Trustees- Rights and Powers of trustees- Disabilities of trustees- Rights and Liabilities of the Beneficiary, Vacating the office of Trustees- Extinction of Trust- Certain obligations in the nature of Trust.

UNIT- IV

Rajasthan Public Trust Act, 1959: Definition and Validity of certain public trust- Registration of Public Trust- Management of Public Trust property- Powers of officers in relations to Public Trust-

UNIT- V

Control of Public Trust- Special provisions in respect of certain trust- Dharmada, Procedure and Penalties.

Fiduciary Relation: Fiduciary Relationship, Definition, Kinds, classification, Fiduciary principle.

Leading Cases:

1. Hindu religious Endowments, Madras v. Shri Lakshmindar Thiratha Swamiar of Shri Shirur Mutt, AIR 1954 SC 282.
2. Durgah Committee, Ajmer v. Syed Hussain Ali AIR 1961 SC 1402.
3. Surajmal Singhvi v. State of Rajasthan , 1966 RLW 556.
4. Tilakayat Shri Govindlalji v. State of Rajasthan, AIR 1963 SC 1630.

Select Bibliography:

1. Upadhyaya, J.J. R.- Equity, Trusts with Fiduciary Relation and Specific Relief.
2. Gandhi, B.M- Equity, Trusts and Specific Relief.
3. Varadachari, V.K.- Law of Hindu Religious and Charitable Endowments.
4. Varadachari, V.K. - Public Trusts and Taxation.
5. सिंह, जी.पी. : साम्या, न्यास एवं विशिष्ट अनुतोष अधिनियम

PAPER 3.6 OPTIONAL PAPER (ANY ONE)
PAPER - 3.6 (A) CRIMINOLOGY AND PENOLOGY

Max. Marks : 100

Min. Pass Marks : 36

UNIT-I

Criminology: Definition, nature and scope, method of studying, importance and classification of crime.

Criminal behaviour: (a) Explanations. (b) Psychological theories, Alcoholism and Drugs. (c) Crime and social process: Economic Motivation, Socio-cultural Motivations, home and community influences, white collar crime, Female offender, juvenile Delinquency, influence of mass-media

UNIT- II

Schools of Criminological Thought (Factors in causation of criminal behaviour)

- i. Ancient School
 - (a) Demonological
 - (b) School of Free Will
- ii. Classical School.
- iii. Cartographic or ecological school.
- iv. Socialistic School
- v. Typological School
 - (a) Italian or positive school
 - (b) Mental Testers School
 - (c) Psychiativists School
- vi. Sociological School.
- vii. Multi factor School.

UNIT- III

Control of Crime: Police and Law courts, Prison system, Re-socialization of the offender, Rehabilitation of discharged prisoners in the administration of Criminal justice, prevention of crime delinquency.

UNIT-IV

Punishment, Relationship between Criminology and Penology; Theories of Punishment: Expiatory, Preventive and reformative and purposes of punishment.
Penal Science in India: History of Punishment, Pre-classical School, Neoclassical, Positive School. Reformers, Clinical School and multiple causation approach.

UNIT- V

Miscellaneous: modes of treatment of offenders, corporeal punishment, Transportation of criminals, Capital punishment, imprisonment, reactional treatment, parole, compensation, admonition, sex and adolescent offenders, indeterminate Sentences, Borstal School, Criminal procedural Jurisprudence. Constitutional Guarantees - Principles of natural Justice as applicable in procedural law, Protection to arrested

persons. Under-trials, detenué and convicted persons. Double jeopardy, self-in-crimination and right to life and legal aid.

Leading Cases:

1. Gura Singh v. State of Rajasthan, 1984 Cr. LJ 1423 (1428)
2. Francis Coralie Mullin v. Union Territory Delhi, AIR 1981 SC. 746.
3. R.K. Garg v. Union of India (1981) 133 ITR 239.
4. Mithu v. State of Punjab, AIR 1983 SC 473.

Select Bibliography:

1. Barnes, H.B. - Teeters - New Horizons in Criminology.
2. Vold, G.S. - Theoretical Criminology.
3. Pillai, K.S. - Criminology.
4. R. Taft, Donald - Criminology.
5. Edwin, H. Sutherland and Donald R. Grussey- Principles of Criminology
6. Horman Mannheim - Pioneers in Criminology.
7. Hon, Barren, Mays - Crime and the Social Structure.
8. Ahmed Siddiqui - Criminology - Problems & Perspectives
9. Lord Pakenham - Causes of Crime.
10. S.Venugopala Rao - Facts of Crime in India.
11. Korm, R.R. and Mc Gorble, LW - Criminology and Penology.
12. Grunhut - Penal Reforms.
13. Mandholm - Criminal Justice and Reconstruction.
14. Garden Rose - The Struggle for Penal reform.
15. I.L.I. - Essays on Indian Penal Code.
16. Ben - Penology - Old and New - Tagore Law Lectures.
17. Elliot - conflicting Penal Theories in Statutory in Criminal Law.
18. Shamshul Huda - Tagore Law Lectures on Criminal law.
19. Lawburse - Crime, Its causes and Remedies.
20. Dequires - Modern Theories of Criminology.
21. Gillin - Criminology and Penology.
22. Deccaria - Crime and Punishment.
23. N.V. Paranjape - अपराधशास्त्र एवं दण्ड प्रशासन
24. M.S. Chauhan - अपराधशास्त्र एवं अपराधिक विज्ञान सिद्धान्त
25. B.L. Babel - अपराधशास्त्र
26. The Criminal Procedure Code.
27. The Constitution of India.

PAPER - 3.6 (B) INTELLECTUAL PROPERTY LAW

Max. Marks: 100

Min. Pass Marks: 36

UNIT- I

Introductory : The meaning of intellectual property, Competing rationales of the legal regimes for the protection of intellectual property, The main forms of intellectual property : copyright trademarks, patents, designs, The competing rationales for protection of rights in, Copyright, Trademarks, Patents, Design, Trade secrets, Other new forms such as plant varieties and geographical Indians, Introduction to the leading international instrument concerning intellectual property right : the Berne Convention, Universal Copyright Convention, the Paris Union TRIPS the World intellectual Property Right Organization (WIPO) and the UNESCO.

UNIT - II

Copyright in India : Historical evolution of the law, Meaning of copyright, Copyright in literary, dramatic and musical works, Copyright in sound records and cinematograph films, Copyright in computer programme, Ownership of copyright, Assignment of copyright, Author's special right, Notion of infringement, Criteria of infringement, Infringement of copyright by films of literary and dramatic works, Importation and infringement, Fair use provisions, Piracy in internet, Aspects of copyright justice, Remedies, especially, the possibility of Anton pillar injunctive relief in India.

UNIT- III

Intellectual Property in Trademarks: The rationale of protection of trademarks as (a) an aspect of commercial and (b) of consumer rights, Definition and concept of trademarks, Registration, Distinction between trademark and property mark, The doctrine of honest Current User, The doctrine of deceptive similarity, Protection of well-known marks, Passing off and infringement, Criteria of infringement, Standards of proof in passing off action, Remedies.

UNIT- IV

Patents (A): Concept of patent, Historical view of the patents law in India, Patentable inventions with special reference to biotechnology products entailing creation of new forms of life, Patent protection for computer programme, Process of obtaining a patent : application, examination, opposition and sealing of patents : general introduction, Procedure for filing patents, patent co-operation treaty, Some grounds for opposition, The problems of limited locus standi to oppose, specially in relation to inventions having potential of ecological and mass disasters, Wrongfully obtaining the invention, Prior publication of anticipation, Obviousness and the lack of inventive step, Insufficient description.

UNIT- V

Patents (B) Rights and obligations of a patentee, Patents as chose in action, Duration of patents : law and policy considerations, Use and exercise rights, Right of secrecy, The

notion of "abuse" of patent rights, Compulsory licenses, Special Categories, Employee invention : Law and Policy Consideration, International Patents, Transfer of Technology, Know-How and problems of self reliant development, Infringement

Leading Cases:

1. Manu Bhandari v. Kalankar Pictures Pvt. Ltd. AIR (1987) Del.13.
2. Nac Sahitya Prakash v. Anand Kumar, AIR 1981 All 200 at P.203.
3. Brudaban Sahu v. Rajendra Subudhi, AIR 1986 Orrisa 210 at p.211.
4. R.G. Anand v. Messers Deluxe Films, AIR 1978 SC 1513 p. 1627.

Select Bibliography:

1. Designs and Patents Act, 1988.
2. International Copy right and Neighbouring Right - G.M. Stewart.
3. Indian Copy-right Act, 1957.
4. Borne Convention Implementation Act, 1988.

PAPER - 3.6 (C) LAW OF MEDICINE

Max. Marks: 100

Min. Pass Marks: 36

UNIT- I

The Establishment of Identity of Individuals: Branding, tattooing, Mutiating, Scars and Moles, Bantillon system: photography: fingerprints: ridge characteristics: Proscopy.

UNIT- II

Injuries: (HURT) : Definition in law (Sec. 319, 320 I.P.C.) Grievous Injury, Classification, Cardinal fractures of different types of injuries, Age of injuries.

Burns & Scars: Classification of burns (Depurants), Causes of death after burns, Simple and grievous burns, Area of the body surface in burns and its relationships, Ante-mortem and post-mortem burns.

UNIT- III

Ashpyxia and Drowning: Cause of asphyxia, post-mortem appearances, Various types of violent asphyxial deaths like hanging, Strangulation, throttling and traumatic asphyxia, and the post mortem appearances commonly seen in these conditions, Drowning - Cardinal post-mortem signs : Cadaveric apasm of hands, Signs in the air passages, Stomach contents, Sign in the lungs, Demonstration of diatoms in the viscera.

UNIT-IV

Sexual Offence: Rape: Definition (Sec 375 I.P.C.), Examination of victim - Anatomy of hymen, Positive signs of rape, Examination of the accused, Medico legal aspects, Sodomy: Examination of the victim, Signs in the habitual passive agent, Examination of the accused,

Examination of Blood Stains: Physical, Chemical & Serological, Blood grouping its basic principles.

UNIT- V

- Autopsy:** Procedure - Aims & Objects - Difficulties, Problems, Times since death - Description of post- mortem changes, Estimation of time since death from rigor post-mortem staining, putrefaction, adipocere formation nummification changes in the eyes, skin, primary and secondary relaxation. In drowning cases from floatation of the body, In dead bodies after burial From the change in the degree of digestion of stomach contents, from the change of the cerebo spinal fluid and the narrow cells of the sternum, Cause and manner of a death, Ante mortem or post-mortem injuries, Examination of human remains skeletal and mutilated remains, Establishment of age, Sex and Stature for the purpose of identity, Infanticide, Definition dead born, still born viable foetus, criteria for separate existence, Exhumation : Rules and Procedure,
8. Poisons : Classification of poisons, Diagnosis of poisoning. Examination of poisoning case. Brief Toxicology of the following common poisons-Opium, Dhatura Barbivaratcs, Cannabis India, Arsenic, Copper Sulphate, Lead Stryehnine, Cocaine, Alcohol Organo Phosphours Compunds, Carbonmonoxide, Hytiocyanci Acid, Pot Cynide, Phosphorus, Snake bite.

Select Bibliography:

1. Parikh's Text Book of Medical Jurisprudence and Toxicology, by Dr. C.K. Parikh.
2. Medical Jurisprudence and Toxicology by Jai singh, S. Modi.
3. Forensic Chemistry and Scientific Criminal Investigation by Lucas A.
4. B.L.Babel- Medical Jurisprudence (Hindi)

Leading Cases :

1. Sada Shiv Mohan Chandra v. State of Kerala, AIR 1994 SC 565.
2. Keru Singh v. State of Rajasthan, 1994 Cr. Lj. 187 SC
3. Jose v. State of Kerala, 1994 SCC (Cr.) 1659
4. Miss Narayanamma v. State of Karnataka, 1994 SCC 573.
5. Hemchandra v. State of Haryana, AIR 1995 SC 120.

PAPER - 3.7 LAND LAWS

Max. Marks: 100

Min. Pass Marks: 36

UNIT-I

THE RAJASTHAN TENANCY ACT, 1955

Preliminary Objects and Reasons Definitions (S.5) : Agricultural year, Grove holder Grove Land, Improvement, Land, Tenant, Trespasser, Classes of Tenants, (S.14, 15, 17, 17-a) Lands on which Khatadari Rights do not accrue (S. 16), Primary Rights of tenants (Ss. 31 to 37) Devolution of tenancies, Transfer of tenancies, Exchange of tenancies, Surrender.

Abandonment and extinction of tenancies, improvement and trees (Ss. 38 to 87)
Groveholders (Ss. 194 to 205)

UNIT-II

Grounds for Ejectment of tenants and Remedies for Wrongful ejectment (Ss. 169 to 188), Provision for injunction and appointment of Receiver (S. 212), Procedure and Jurisdiction of Courts (Ss. 216 to 221), Appeal, Review, Revision, Reference (Ss. 222 to 232), Question of tenancy right in Civil Courts (S. 242) Conflict of Jurisdiction (S. 243)

UNIT-III

THE RAJASTHAN LAND REVENUE ACT, 1956

The Board of Revenue (Ss. 4 to 14), Revenue Courts and Officers (Ss. 15 to 36), Appeal, Reference, Revision and Review (Ss. 74 to 87); Land : use of Agricultural Land for Non-Agricultural purposes (s. 90-A), unauthorised Occupation of Land (S. 91), Allotment of Land for Agricultural purpose (S. 101), Survey and Record operations: General (Ss. 106 to 109) Boundary Marks (Ss. 110 to 111) Maps and Field Books (S. 112)

UNIT-IV

Record of Rights (Ss. 113 to 121) Mutations (Ss. 122 to 137). Settlement operation: General (Ss. 142 to 146), Economic Survey (S. 148) Formation of Assessment Circles (S. 149), Soil classification (S. 150), Evolution and Modification of rent rates, preparation of rent rate reports. its submission and finalisation (Ss. 151 to 167), Tenants option to refuse rent determined and its effect (Ss. 168 to 172), Preparation of Dastoor Ganwai (Ss. 173 to 174), Term of settlement (Ss. 175 to 177), Processes for Recovery of Revenue (S. 228), Writ of demand and citation to appear (Ss. 229 and 229- A), Attachment and Sale of movable property (S. 230), Attachment of the Land (Ss. 231 to 233), Sale of defaulters specific Area, Path or estate (Ss. 235 to 253)

UNIT-V

The Rajasthan Rent Control Act, 2001 (Act No. 01 of 2003 as amended by Rajasthan Act No. 21 and 22 of 2005): Definition, Application Preliminary, Revision of Rent, Determination of rent, Tenancy- Limited period tenancy, eviction of tenants, rights of landlord, Restoration of possession of illegally evicted tenant and procedure thereof. Constitution of Tribunals, Jurisdiction, Appeal and Execution, Amenities and Miscellaneous provisions.

Selected Bibliography :

1. S.K. Dutta- Rajasthan Tenancy Act, Rajasthan Land Revenue Act, Rent Control in Rajasthan.
2. Mathur & Mathur- Land Laws in Rajasthan.
3. Dr. G.S. Karkara- Land Laws in Rajasthan.

Leading Cases :

1. Ugam Raj v. Civil Judge(SD) Sojat City & ors. 2005(6) RRD 2180 (Raj.)
2. Heera Lal v. Rent Tribunal, Bikaner & ors. 2005(7) RRD 2648 (Raj.)

3. Nathu Singh v. Laxman Singh 1995 RRD 124
4. Panne Singh v. Guman Singh 1964 RRD 101
5. Shivshankar v. Murlī Sri Bade Mathureshji 1996 RRD 316
6. Bhojra v. Ganesh 1996 RRD 71

PAPER - 3.8 HUMAN RIGHTS LAW AND PRACTICE

Max. Marks: 100

Min. Pass Marks: 36

Unit - I

1. Human Rights : Concept

- a. Human Rights Meaning and Nature
- b. Human rights in Indian tradition : ancient, medieval and modern
- c. Human rights in western tradition
- d. Development of natural rights
- e. Human Rights in international law and national law

Unit - II

2. Classification of Human Rights – First, Second and Third Generations : Historical Development

Unit - III

3. Human Rights Under International Law

- a. Universal Declaration of Human Rights (1948)
- b. Covenant of Political and Civil Rights (1966)
- c. Covenant of Economic, Social and Cultural Rights (1966)

Unit - IV

4. Role of Regional Organizations

- a. European Convention of Human Rights
- b. American Convention on Human Rights
- c. African Convention of Human Rights

Unit - V

5. Enforcement of Human Rights in Indian Perspective

- a. Role of Supreme Court
- b. Role of High Courts
- c. Role of National Human Rights Commission
- d. Role of State Human Rights Commissions

Select Bibliography

- D.D.Basu, Human Rights in Indian Constitutional Law, (1994).
 Vijay Chitnis,(et.al.). Human Rights and the Law. National and Global Perspectives, (1997).
 B.P.Singh Seghal, Law, Judiciary and Justice in India, (1993).
 James Vadakkumchery, Human Rights and the Politics in India, (1996).

- D.R.Saxena, Tribals and the Law, (1997).
 Poornima Advani, Indian Judiciary: A Tribute, (1997).
 Justice Venkataramiah, Human Rights in the Changing World, (1998)
 Paramjit S.Jaiswal and Neshtha Jaiswal, Human Rights and the Law, (1996).

**PAPER - 3.9 ARBITRATION, CONCILIATION AND ALTERNATIVE DISPUTES
 RESOLUTION SYSTEMS**

- (A) **Written Paper: 80 marks** **Min. Pass Marks : 29**
 (B) **Practical Paper: 20 marks** **Min. Pass Marks : 07**

The Practical examination shall be conducted by a committee of 2 examiners. In this committee there shall be one internal and one external examiner.

(A)Written Paper

UNIT-I

Arbitration and Conciliation Act, 1996: General provisions: Arbitration agreement; Arbitral Tribunal: Composition and Jurisdiction; Conduct of Arbitral Proceeding.

UNIT-II

Arbitral awards: Termination of proceedings, setting aside the Arbitral award; Enforcement of Arbitral awards, Appeals; Code of ethics for Arbitrators.

UNIT-III

Enforcement of Foreign-awards; Geneva Convention International arbitration institutions
 Conciliation : conciliators, appointment of conciliators, relationship of conciliators with the parties, settlement agreement status and effect of settlement agreements. Terminations of conciliation proceedings, resort to judicial proceedings, cost and deposits.

UNIT- IV

Alternative dispute & resolution system: Objects and role of committee for implementation of legal aid schemes (CILAS). The Legal services authorities act, 1987 (as amended by the act of 2002)- The national legal service authority, State legal service authority and District legal service authority- constitution and functions;

Lok Adalat- Organisation, cognizance of cases, award and powers. Permanent Lok Adalat-establishment, cognizance of cases, procedure and award. Study of other alternative dispute resolution system in brief such as Nyay Panchayat and Family courts.

Leading Cases:

1. Sundaram Finance Ltd. v. NIPC India Ltd. (1999) 2 SCC 479
2. NMTC Ltd. v. Sterlite Industries Ltd. 1996(4) SCC 219
3. Lotus Investment and Securities v. Pramod S. Tiberwal 1996(2) SCC 579
4. State of Rajasthan v. Bharat Construction Co. 1998 (4) CCs 172 (Raj.)

Selected Bibliography:

1. G.C. Mathur, Arbitration and Conciliation Act, 1996.

2. S. Krishnamurthy: Law of Arbitration and Conciliation.
3. P.M.Bakshi: Arbitration Law.
4. O.P. Tiwari: The Arbitration and Conciliation Act, 1996
5. Avtar Singh: Law of Arbitration and Conciliation.

PRACTICAL PAPER : 3.10

DRAFTING, PLEADING, CONVEYANCING

AND MOOT COURT TRIAL

This paper will consist of following two parts –

(A) Written Paper: 80 marks

Min. Pass Marks: 29

(B) Practical Paper: 20 marks

Min. Pass Marks: 07

The Practical examination shall be conducted by a committee of 2 examiners. In this committee there shall be one internal and one external examiner.

(A)Written Paper

UNIT- I

Pleading: Meaning, Kinds; Fundamental principles of pleading and their exceptions, amendment of pleadings, alternate and inconsistent pleadings Doctrine of set-off: Legal set-off and equitable set-off

UNIT- II

Drafting of pleadings Civil: Plaints, written statement, Original Petition, Affidavit, Notice, Execution Petitions, Memorandum of Appeal, Execution of Writ Petition. and Judgement writing

UNIT- III

Criminal complaints, Bail Application, Accused Reply, criminal Miscellaneous Petition, Appeal, Reference and Revision.

UNIT- IV

Conveyancing: Meaning, General Rules of Conveyancing, Salient parts of conveyancing, rules relating to their drafting

Drafting of Deeds: Partnership deed, mortgage by conditional sale, notice for eviction, writing of government contract, sale deed, Mortgage Deed, Gift Deed, Lease Deed, Rent Deed, Power of Attorney, Provisory Note and will .

(B)Practical Paper:

- (1) Pre-trial Preparation :** Each student will observe two interviewing session of clients at the advocate office / legal office and record the proceedings in a diary.
- (2) Participation in Trial Proceedings :** Each student will attend two trials during the session and maintain a record and enter the various steps observed during in a diary.
- (3) Moot Court :** Each student will participate in two Moot courts

(4) Viva-voce: The Viva-voce examination shall be conducted by a committee of two persons. In this committee there shall be one Internal and one External Examiner. The committee shall award marks on the basis of Court diary, performance at the Moot court and Viva-voce Examination.

The division of marks will be as under:

- | | |
|--------------------------------------|----------|
| (1) Record maintained by the student | 5 marks |
| (2) Participation in Moot court | 5 marks |
| (c) Viva-voce | 10 marks |

**M.G.S. UNIVERSITY BIKANER,
BIKANER**

SYLLABUS

FACULTY OF LAW

**P.G. ONE YEAR DIPLOMA COURSE IN LABOUR LAW,
LABOUR WELFARE AND PERSONNEL MANAGEMENT-2021**
**P.G. ONE YEAR DIPLOMA COURSE IN CRIMINOLOGY
AND CRIMINAL ADMINISTRATION -2021**
P.G. ONE YEAR DIPLOMA COURSE IN TAXATION LAWS & PRACTICE -2021
P.G. ONE YEAR DIPLOMA COURSE IN LEGAL AND FORENSIC SCIENCE-2021
P.G. ONE YEAR DIPLOMA IN HUMAN RIGHTS-2021
P.G. ONE YEAR DIPLOMA IN INSURANCE LAW AND MANAGEMENT-2021



P.G. ONE YEAR DIPLOMA COURSE IN LEGAL AND FORENSIC SCIENCE

1. Every candidate for the Diploma Course in Legal and Forensic Science shall be examined in the following six papers in theory and practical examination separately. The theory paper shall be of three hours duration and practical paper shall be of five hours (one day).

Paper I: Criminal Jurisprudence and Evidence Law

Paper II: Identification of Individuals

(a) Theory

(b) Practical

Paper III: Identification of Finger Prints

(a) Theory

(b) Practical

Paper IV: Identification of Objects

(a) Theory

(b) Practical

Paper V: Identification of Hand-writing

(a) Theory

(b) Practical

Paper VI: Medical Jurisprudence and Forensic Science

2. A candidate who after having passed the examination of Bachelor of Law (LL.B) with at least 48% marks in the aggregate of M.Sc. or B.Sc. with at least 50% marks in the aggregate of this University or of any other Indian University recognized for the purpose by the syndicate shall be permitted to appear at the examination in the Diploma course in Legal and Forensic Science after having pursued a regular course of study in the university for one academic year.

The Candidate shall be admitted as per following ratio:

(a) For LL.B Students 60% seats

(b) For M.Sc. Students 20% seats

(c) For B.Sc. I Division 20% seats

SCHEME OF EXAMINATION

For the Diploma Course in Legal and Forensic Sciences, candidates must obtain, for a pass, at least 40% marks in individual paper and 48% marks in aggregate. Of the successful candidates, those securing 60% or more marks in the aggregate shall be placed in the first division and the rest in the second division.

PAPER I
CRIMINAL JURISPRUDENCE AND EVIDENCE LAW

Max. Marks: 100

Min. Marks 40

- Note: i. The syllabus has been divided into units. Questions will be set from each unit with provision for internal choice.
- ii. In order to ensure that students do not leave our important Portions of the syllabus, examiners shall be free to repeat the questions set in the previous examination.

Unit I

The nature of crime, principles of criminal jurisprudence with special reference to Article 21 Current Causal Theories Relating to Criminal Behaviour; Common link and cohesion between Legal Professional and behavioural Scientists : Effectiveness of various alternative, Social and legal devices in controlling deviant behavior handling of delinquents, including Juvenile, Approaches and Methods of Crime Detection, Social Role and Police Behaviour.

Unit II

Tactical and Practical application of Criminal Law techniques of trying criminal case investigation discovery and trial preparation F.I.R. its legal value investigation into cognizable and non- cognizable offences, inspection of the scene of occurrence and collection of material from the place of occurrence. Police Diaries and Registers.

Unit III

Qualification of an expert, Admissibility of Expert evidence, Examination of Expert, Admissibility of non-Expert Evidence, Comparison of Admitted writings with the Disputed writings its Evidentiary value, Legality of Conviction based on Expert Evidence, Value and Credibility of Expert opinion Duty of Court to examine expert, onus of proof Expert as a witness.

Unit IV

Fundamental Principles of Investigation, Powers Duties and Functions of Investigators, Police Personnel, Prevention of Crime, Preconceived Theories, Essential qualities of an investigator interrogation of witness and accused.

Unit V

General Procedure in an Investigation, Investigation in Death cases. Investigation in sex offences. Apprehension of the Fugitive; Surveillance Interrogation, Techniques, Professional and Habitual

offenders, racket investigations, International Crime - Interpol, Search and Seizure.

Books Recommended:-

1. Lucas : Forensic Chemistry and S.... Criminal Investigation.
2. Mitchell, C, Aiasworth : The Scientific Detective and the Expert witness
3. Mitchell, C. Aiaswoth : The Expert Witness.
4. W.Teignmouth Shases : Crime and its Diction, Vols. I and II
5. Hardless and Shrivastava : Case Law on Export Evidence Col.
6. Maurice Fitzgrad : Hand Book Of Criminal Investigation.
7. Richard L Jackson : Criminal Investigation.
8. Yadav : Police Investigation and Prosecution (Hindi)
9. Babel B.L. Police Investigation (1984 Ed.) Hindi)
10. Gupta, R.L. : Law Relation to Identification and Expert Opinion.
11. Nath, Bholeshwar : Cases and Materials on Law of Evidence
12. Keller : R.V. : Outlines of Criminal Procedure (1984 Ed.)
13. Kenny : Outlines of Criminal Law
14. Hall : Studies in Jurisprudence and Criminals
15. Ratan Lal : Criminal Procedure Code, 1973
16. Ratan Lal : Indian Evidence Act. 1872
17. Krisk Paul L : Crime Investigation
18. Hans Gross, John Adam and J. Collya Adam : Criminal Investigation.
19. Ded, R L Criminology, Criminal Law and Investigation
20. Harry Soderman : Modern Criminal Investigation

**PAPER II (A) THEORY
IDENTIFICATION OF INDIVIDUALS**

Max. Marks : 80

Min. Marks : 32

- Note : i. The Syllabus has been divided into units. Questions will be set from each unit with provision for internal choice.
- ii. In order to ensure that students do not leave out important portions of the syllabus. Examiners shall be free to repeat the questions set in the previous examination.

Unit I

Identification of- Race, Sex, Age, Classification, Hair, Anthropometry, Foot Prints, dectylography, Scars, Tatoo, Marks, Hand writing, Occupation Marks, Gait etc.

Unit II

Examination of body fluids and others to secure incrimination evidence from within the body of the accused such as :

- a. A. Blood stain, B. Seminal stain, C. Vomit D. Urine, E. Stool, F. Saliva, G. C.S.F., (Cerebrospinal Fluid)
- b. A. Skin, B. Hair C. Nail, Taking of photographs removing incrimination evidence from outside the body of the accused.

Unit III

a. Identification of Weapons and Firearm ammunitions in relation to injuries. Flooroscopic examination of the body and extraction of foreign objects.

- b. Salient features of injury report and post mortem report, Medical certificate.

Unit IV

Examination to determine insanity:

- a. Delusion b. Hallucination c. Elusion
- d. Impulse e. Obsession f. Lucid interval
- g. Pain and true insanity h. Restraint of the insane
- i. Physiological and psychological test.

Unit V

- a. Identification and salient features of common poisons.
- b. Preservation of Viscera and other material and
- c. The Identification of Prisoners Act. 1920 and the Prisoners Act. 1984

Book Recommended

1. Gupta R.L. : Law Relating to Identification and Expert Evidence.
2. Mitter : Law of Identification and Discovery
3. Wilder, W.W. and Wenworth, B : Personal Identification
4. Tripathi : Self-incrimination : Physical and Medical Examination of the Accused.
5. Osterburg, James, N.:Crime Laboratory
6. Harry Soderman : Modern Criminal Investigation
7. Nigel Morlaud : An outline of Scientific Criminology
8. Jhala, R.M. : Criminal Investigation and Medical Science

PAPER II (B) PRACTICAL

Max. Marks : 20

Min. Marks : 08

Duration of Practical Examination

5 Hours (one day)

The Candidate must pass in theory and practical examinations separately

1. Practical exercise and specimen from Unit I to Unit V of Paper II
relation to Identification of Individuals 10 Marks
2. Practical Record book 05 Marks
3. Viva-Voce 05 Marks

PAPER III (A) THEORY

IDENTIFICATION OF FINGER PRINTS

Max. Marks : 80

Min. Mark : 32

- Note :
- i. The Syllabus has been divided into units. Questions will be set from each unit with provision for internal choice.
 - ii. In order to ensure that students do not leave out important portions of the syllabus. examiners shall be free to repeat the questions set in the previous examination.

Unit I

- a. History of Finger Prints.
- b. Ridge Formation - Ridge, Destruction, and
- c. Types of Finger print patterns-pattern inter pretation.

Unit II

- a. Ridge characteristics-Ridge counting, Ridge tracing.
- b. The Finger print outfit-Recording finger prints, and
- c. Functions of the Finger Print card-Special circumstances.

Unit III

- a. Latent Finger Print Crime Scene procedure
- b. Primary Classification
- c. Sub-Classification : Unlettered loop whorl Lettered Loop.

Unit IV

- a. Latent finger Print
- b. Combinations and approximating patterns,
- c. Preparing Finger Prints for court, and
- d. F.B.L. Examination to the Henry System

Unit V

- a. The Finger print witness in court case histories.
- b. Identification of Palm and Foot Print, and
- c. Bureau, Operation and records.

Books Recommended :

1. Collins, G.S. : Finger Print Clause (H.M.S.O.)

2. Smith Henry : The Forgery of Finger Print, Transaction
3. Medico Legal Society vol. XXIV
4. Brewster, F : Finger Prints, Eastern Law House, Calcutta
5. Chatterjee S.K. : Finger, Palm and sole Prints.
6. Fidd Ania T. : Finger Print Hand Book
7. Gregory R.A. : Identification of Disputed Documents
8. Finger Prints and Bslitis (1960), Eastern Book Co. Luckow.
9. Gatton, S : Finger Prints.
10. Henry, E : Classification and Use of Finger Prints.
11. Osterburg, James, W : Crime Laboratory
12. Harry Soderman : Modern Criminal Investigation
13. Nigel Morland : An Outline of Scientific Criminology

PAPER III (B) PRACTICAL

Max. Marks : 20

Min. Marks : 08

Duration of Practical Examination : 5 Hours (one day)

The Candidate must pass in Theory and Practical Examinations separately.

The distribution of marks for practical examination shall be as under :

- | | | |
|----|---|----------|
| 1. | Five practical exercises, one from each unit relating to Identification of Finger Print | 10 Marks |
| 2. | Practical Record Work | 05 Marks |
| 3. | Viva-Voce | 05 Marks |

PAPER IV (A) THEORY IDENTIFICATION OF OBJECTS

Max. Marks: 80

Min. Marks 32

- Note:
- i. The Syllabus has been divided into units. Questions will be set from each unit with provision for internal choice.
 - ii. In order to ensure that students do not leave out important portions of the syllabus. examiners shall be free to repeat the questions set in the previous examination.

Unit I

Identification of type writing, fiber identification paints, varnishes, glass, wood and paper identifications.

Unit II

Identification of ballistics, dust, dirt, debris, ashes soil and powers.

Unit III

Identification of liquids and chemicals, identification of poison, explosives, clothes, fire arms and bullets, weapons, tools, instruments and metals.

Unit IV

Identification of Vehicular colour detection in accident cases, imprints on object other than fingers poison effects and death while lightening and electricity.

Unit V

The Provisions of food Adulteration Act. 1954 the Arm Act. and the Fire Arms and Explosive Act. relating to identification of objects.

Books Recommended :

1. Gregory, R.A.: Identification of disputed documents. Finger Prints and Ballistics (1960), Eastern Book Co., Locknow.
2. Ajar : Law and Practice of Arms, Ammunition and Explosives (1985 Ed.)
3. Malik, Vijay : The Explosives Act. 1984 and Explosives Substance Act. 1908
4. Gupta, R.L. Law Relating to Identification and Expert opinion and Firearm injuries
5. Osterdurg, James, K.S. : Crime Laboratory
6. Harry Soderman : Modern criminal Investigation
7. Nigel Morland : An Outline of Scientific Criminology
8. Firearms in Criminal Investigation and Trial

PAPER IV (B) PRACTICAL

Max. Marks : 20

Min. Marks : 08

Duration of Practical Examination 5 Hours (one day)

The candidate must pass in Theory and Practical Examination Separately.

The distribution of marks for practical examination shall be as under:

1. Four practical exercises, one each from Unit I to IV paper IV relating to Identification of Objects. 10 Marks
2. Practical Record Work 05 Marks

3. Viva- Voce

05 Marks

**PAPER V (A) THEORY
IDENTIFICATION OF HAND WRITING**

Max. Marks : 80

Min. Marks 32

- Note :
- i. The Syllabus has been divided into units. Questions will be set from each unit with provision for internal choice.
 - ii. In order to ensure that students do not leave out important portions of the syllabus. Examiners shall be free to repeat the questions set in the previous examination.

Unit I

Languages and dialects of India

Unit II

Standards of Comparison Identification of hand writing, wheaber a science, general characteristics of hand writing

Unit III

Writing habits, comparison of different hand writings personal characteristics.

Unit IV

Forgery, disguised writing different inks, additions alterations, erasures and sequence of strokes.

Unit V

Examination of documents including currency notes and valuable securities in doubt, past hand writing of accused hand writing by left and right hand comparison of different curves in present and past hand writing.

Books Recommended :

1. Smith Heniy : The Forgery of Finger Print-Transaction
2. Gregory, R.A. : Identification of Disputed Documents, Finger Prints and Ballistics.
3. Blackburn, D and Codel. C.W. : Detection of Forgery

PAPER V (B) PRACTICAL

Max. Marks : 20

Min. Marks : 08

Duration of Practical Examination

5 Hours (one day)

The candidate must pass in theory and practical examination separately.

The distribution of marks for practical examination shall be as under:

- | | | |
|----|--|----------|
| 1. | Five practical exercises, one for each unit relating to identification of Hand Writings. | 10 Marks |
| 2. | Practical Record work. | 05 Marks |
| 3. | Viva-Voce | 05 Marks |

PAPER VI

MEDICAL JURISPRUDENCE AND FORENSIC SCIENCE

Max. Marks: 100

Min. Pass Marks: 40

- Note :
- The Syllabus has been divided into units. Questions will be set from each unit with provision for internal choice.
 - In order to ensure that students do not leave out important portions of the syllabus. Examiners shall be free to repeat the questions set in the previous examination.

Unit I

Post mortem examination
Examination of mutilated bodies.
Examination of bones, and Exhumation.

Unit II

Death - Definition, Modes
Signs of death - Changes in eye
Changes in skin
Cooling of body
Post-Mortem staining
Changes in muscles
Purification
Adepicare, and
Mummification

Unit III

Death from Asphyxia and other types :

- Hanging
 - strangulation
 - Suffocation
 - Drowning
- Starvation

Unit IV

Injuries : Medico-legal Aspects of injuries, burns. Lightning, electricity and mechanical violence, Suicidal, Homicidal and Accidental injuries.

Unit V

Virginity
Pregnancy
Legitimacy
Sexual offences, examination of victim and accused.
Sodomy - Examination of the active and passive agent.
Miscarriage and Infanticide
Child born alive and still born causes of infanticide,
Law in relation to medical men, and
Duties of physician, professional negligence and responsibility.

Book Recommended

1. Modi, N.J. : Modi's Medical Jurisprudence
2. Taylor : Principles and practice of Medical Jurisprudence, Vol I & II
3. Lyons : Medical Jurisprudence for India
4. Jhala, R.M. and Raju, V.B. : Medical Jurisprudence.
5. Singhal, L.J. : Forensic Medicines
6. Dougals, J.A. Ken : Forensic Medicines
7. Teigumouth E, Shore : Crime and its Detection, Vols, I and II
Gradwel: Legal Medicine
8. Millik, C.C. : Hand Book of Medical Jurisprudence.
9. Prakh, C.K. : A Simplified Text Book of Medical Jurisprudence and Toxicology.

P.G. ONE YEAR DIPLOMA IN HUMAN RIGHTS

R. 21F A candidate who has passed the Bachelor of Laws (P) degree examination of the University or M.A. Political Science or M.A. Sociology degree of the University or an examination of some other University recognized by the Board of Management of the University as equivalent there to securing a minimum of 50% marks in aggregate and thereafter pursued a regular course of study in affiliated college for one academic year shall be eligible for admission to the Diploma Examination.

There shall be a teaching of six hours per paper per week.

The examination for the Diploma in Human Rights shall consist of one-year programme and there will be an examination at the end of the year.

For Diploma Course in Human Rights, candidate must obtain for a pass at least 40% in the individual papers and 48% in aggregate. Of

M.Sc. First Semester

Paper ES 101	Environment and Ecology
Paper ES 102	Environmental Geoscience
Paper ES 103	Environmental Chemistry
Paper ES 104	Environmental Pollution
Practical	

ES 101 Environment and Ecology

Time: 3 Hours

M.M. 40+10

Unit I

Earth, man and environment. Environmental factors: Atmosphere, Hydrosphere, Lithosphere and Biosphere, and their interrelationships. Holistic concept, environmental complex, tolerances, ecological amplitude, limiting and inhibiting effects. Climatic factors: Pressure, temperature, RH, precipitation, radiation, wind. Edaphic factors: physical, chemical and biological characteristics.

Unit II

Ecology- Definition, principles, and scope. Human ecology and settlement. Ecosystems: Structure and functions. Abiotic and Biotic components, Energy flows, Food chains, Food web, Ecological pyramids. Ecosystem types- Aquatic (freshwater, marine) and terrestrial (grassland, forest) ecosystems. Concept of Population and Community. Ecotones and their importance.

Unit III

Biogeochemical cycles and regulation, pools and flexes, basic cycles: hydrologic, carbon, oxygen, nitrogen, phosphorus and sulphur cycles; Nutrient cycling in forest and aquatic ecosystems.

ES 102 Environmental Geoscience

Time: 3 Hours

M.M. 40+10

Unit I

The earth systems and Biosphere: Conservation of matter in various geospheres- lithosphere, hydrosphere atmosphere and biosphere. Energy budget of the earth. Earth's thermal environment and seasons. General relationship between landscape, biomes and climate. Climates of India. Indian Monsoon. El Nino. Droughts. Tropical cyclones and Western Disturbances.

Unit II

Earth's Processes and Geological Hazards: Earth's processes; concept of residence, time and rates of natural cycle. Catastrophic geological hazards. Study of floods, landslides, earthquakes, volcanism and avalanche. Prediction and perception of the hazards and adjustments to hazardous activities.

Unit III

Environmental Geochemistry: Concept of major, trace and REE. Classification of trace elements. Mobility of trace elements. Geochemical cycles. Biogeochemical factors in environmental health. Human use, trace elements and health. Possible effects of imbalance of some trace elements.

ES 103 Environmental Chemistry

M.Sc. Second Semester

Paper ES 201	Environmental Monitoring
Paper ES 202	Desert Ecology
Paper ES 203	Environmental Legislation
Paper ES 204	Environmental Toxicology
Practical	

ES 201 Environmental Monitoring

Time: 3 Hours

M.M. 40+10

Unit I

Principles of Analytical Methods and their application in Environmental monitoring, with special reference to: Titrimetry, Gravimetry, Colourimetry, Spectrophotometry, Chromatography, Gas Chromatography, Atomic Absorption Spectrophotometry, GLC, HPLC, Electrophoresis, X-ray fluorescence, X-ray diffraction, Flame photometry.

Unit II

Systems analysis for Environmental problems. Environmental monitoring for Air, Water, Soil, Radiation and Microbiology: Common parameters, sampling procedures and analytical techniques.

Unit III

Basic elements and tools of statistical analysis; Probability, sampling. Measurement and distribution of attributes; Distribution-Normal, t and x', Poisson and Binomial; Arithmetic, Geometric and Harmonic means; moments; matrices, simultaneous linear equations. Tests of hypothesis and significance.

Introduction to environmental system analysis; Approaches to development of models; linear simple and multiple regression models, validation and forecasting. Models of population growth and interactions-Lotka-Volterra model, Leslie's matrix model, point source stream pollution model, box model. Gaussian plume model.

ES 202 Desert Ecology

Time: 3 Hours

M.M. 40+10

Unit I

Definition and types of deserts. Major deserts of the world- Distribution and characteristics. Causes of desertification.

Unit II

Desert ecosystem with special reference to the Indian desert: environment, flora, fauna. Desert adaptations among plants and animals. Drought and famine, migration. Aridity index. Endangered plant and animal species of the Indian desert and their conservation strategies.

Unit III

Resource management in deserts- traditional and modern approaches. Saline tracts of the Rajasthan desert. Impact of canal irrigation on the ecology of the Indian desert. Approaches for combating desertification. Dry land farming. Waterbodies in arid and semiarid lands and their management strategies.

ES 203 Environmental Legislation

Time: 3 Hours

M.M. 40+10

Unit I

Overview of the ISO 14000 family, Key aspects of the International Standard ISO 14001. Environmental Management Systems: Benefits, Principles and elements of successful

M.Sc. Third Semester

- Paper ESCC 301 Environmental Technology**
Paper ESCC 302 Environmental Impact Assessment-I
Paper ESCE 303 (A) Population and Community
OR
(B) Biomes and Biogeography
Paper ESEO 304 (A) Climate Science
OR
(B) Disaster Management

Practical

ESCC 301 Environmental Technology

Time: 3 Hours

M.M. 40+10

Unit I

Scope, Purpose and Objectives of Air Quality Monitoring Programme; Guidelines and Design of an air quality surveillance network; Period, frequency and duration of sampling; Principles and instruments for sampling and measurement of -(i) ambient air pollutants, and (ii) stack emissions (monitoring).

Dispersion of Pollutants: maximum mixing depth, lapse rate, stability conciliations, plume behaviour, calculation of effective stack height.

Unit II

General methods of control of Gaseous pollutants-scrubbers, condensers, control equipment for particulate matter-gravity settling chambers, cyclone, fabric filters, electrostatic precipitators, case study of thermal power plants. Control of Mobile Source Emissions. Automobile Exhausts.

Unit III

Water Pollution Control: Drinking Water Treatment Procedures, Flocculation, Settling, Filtration, reverse sand filter, cleaning, chlorination:

Methods of Cleaning Potable Water: Filtration, Electro-dialysis, principle & theory of chemical oxidation. Disinfection mechanism: Ozone, permanganate, chlorination. Reverse osmosis. Ultra filtration. Water quality standards.

Environmental Biotechnology: Fermentation, Vermiculture, Biogas, Biofertilizer, Bioremediation technologies.

ESCC 302 Environmental Impact Assessment-I

Time: 3 Hours

M.M. 40+10

Unit I

Introduction to environmental impact analysis. Environmental impact Statement and Environmental Management Plan. EIA guidelines 2006, Notifications of Government of India. Impact Assessment Methodologies, their strengths and weaknesses. Generalized approach to impact analysis. Procedure for reviewing Environmental impact analysis and statement.

Unit II

Guidelines and basic principles of Environmental auditing -Definition, functions, benefits and costs of Environmental Auditing. Introduction to Environmental planning. Base line information and predictions (land, water, atmosphere, energy, etc.). Landuse policy for India. Urban

M.Sc. Fourth Semester

- Paper ESCC 401 Natural Resources and Management
Paper ESCE 402 (A) Environmental Impact Assessment-II
OR
(B) Biodiversity and Conservation
Paper ESEO 403 (A) Environmental Issues and Awareness
OR
(B) Waste Management
Paper ESCC 404 Dissertations

Paper ESCC 401 Natural Resources and Management

Time: 3 Hours

M.M. 40+10

Unit I

Principles of Remote sensing and their application in Environmental Sciences. Application of GIS in Environmental Management. Landuse Planning: The landuse plan. Soil surveys in relation to landuse planning. Methods of site selection and evaluation.

Unit II

Sun as source of energy, solar radiation and its spectral characteristics. Fossil fuels- classification, composition, physico-chemical characteristics and energy content of coal, petroleum and natural gas. Principles of generation of hydroelectric power, tidal, Ocean Thermal Energy Conversion, wind, geothermal energy; solar collectors, photovoltaic, solar ponds; nuclear energy- fission and fusion; magnetohydrodynamic power, bio-energy-energy from biomass and biogas, anaerobic digestion; energy use pattern in different parts of the world.

Unit III

Water Resources and Environment: Global Water Balance. Ice sheets and fluctuations of sea levels. Types of water. Origin and composition of seawater. Hydrological cycle. Factors influencing the surface water. Resources of oceans.
Mineral Resources and Environment: Resources and Reserves. Minerals and Population. Oceans as new areas for exploration of mineral resources. Environmental impact of exploitation, processing and smelting of minerals.

Paper ESCE 402 (A) Environmental Impact Assessment-II

Unit I

Reporting: - Features & purpose of EIA Reports, Main elements of EIA Report, Shortcoming encountered in preparing EIA reports. Review of EIA Quality:- Role & purpose of the Review process, Aspects for consideration, EIA Review- Types of Procedures, Steps involved in EIA Review, EIA review criteria, EIA review methods, Four steps approaches for EIA review. Environmental Management plan Or Impact management Plan.

Unit II

Decision Making: - concepts and its importance, responsibilities of decision makers in EIA process, Decision Making Process. Implementation & Follow up:- Need & purpose, Its components, Guiding Principles and elements, Aspects and Issues needs to be considered in EIA implementation & follow up.

Unit III

EIA Project Management: - its concepts, Role of Project Manager, Characteristics & Attributes of an interdisciplinary of EIA team, Project Managers Responsibilities. Social Impact

Practical Work Semester – IV

Environmental Monitoring

1. Determination of particle size using respirable dust sampler.
2. Determination of PM 2.5 using fine particle sampler.
3. Respirable Suspended Particulate Matter (RSPM) by Respirable suspended particulate matter sampler (RDS APM 460)
4. Dust retaining capacity of plants.
5. Measurement of noise.
6. Estimation of BOD
7. Estimation of COD
8. Estimation of Chlorophyll
9. Estimation of Total, organic and inorganic carbon
10. GPS – Application in field
11. Estimation of Biodiversity
12. Site visit to degraded landscapes/habitats- terrestrial and aquatic.
13. Visit to restored/ managed habitats & study of their practices.
14. Field use of contour Marker for alignment of contour lines on the ground.
15. Visit to watershed area, to study different characteristics of watershed preferably in rainy season.

Advanced Instrumental Techniques

1. Flame photometry
2. UV-Visible Spectrophotometry
3. Atomic Absorption Spectrophotometry

Case Study

Related to Pollution Monitoring, Treatment and Control; Environmental Impact Assessment; Resource recycling and reclamation; Biodiversity and its conservation.

Point no. - 2

Point no - 1.1.3

Practical Work Semester – II

Monitoring of Soil: Measurement of Bulk density, Specific gravity, Moisture content, Conductivity, pH, Alkalinity, Soluble ions, Nitrogen, Phosphorus, Sulphur.

Geographical data:

1. Meteorological records – Pressure, Temperature, Precipitation, Humidity, wind.
2. Drainage basin and network morphometry
3. Slope and aspect maps, Critical slope for specified activities, Profiles.
4. Climatic maps and diagrams: circular graph, climograph, water budget, wind roses (simple and compound)
5. Application of GPS in various environmental applications.
6. Estimation of Biodiversity by using various diversity indices.

Visit:

Visit to a terrestrial or aquatic location of ecological importance.

Practical Work Semester – III

Geoinformatics:

1. Introduction of the GIS software.
2. Georeferencing
3. Base layer preparation / Digitization
4. Preparation of Geodatabase.
5. Mosaicing.
6. Classification of Satellite Image.

Solid Waste Analysis

1. Physical composition (by weight)
2. Moisture content
4. pH and Conductivity

Environmental Statistics

1. Grouping of data and preparation of frequency distribution. Histogram and frequency polygon.
2. Calculating mean, median and mode for grouped and ungrouped data.
3. Calculating variance, standard deviation and coefficient of variation for grouped and ungrouped data.
4. Fitting simple linear regression. Plotting scatter diagram and regression line.
5. Computing correlation coefficient and testing its significance for grouped and ungrouped data.
6. Comparison between means of two independent samples. Paired t-test.
7. Analysis of variance one way classification.
8. Analysis of variance: two-way classification.

**M.G.S. UNIVERSITY,
BIKANER**

SYLLABUS

**SCHEME OF EXAMINATION AND
COURSES OF STUDY**

FACULTY OF LIBRARY & INFORMATION SCIENCE

**BACHELOR OF LIBRARY & INFORMATION
SCIENCE - 2021**



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**BACHELOR OF LIBRARY & INFORMATION SCIENCE
MAHARAJA GANGA SINGH UNIVERSITY, BIKANER**

COMMITTEE OF COURSES IN LIBRARY & INFORMATION SCIENCE

1. Shri Umesh Sharma (Convener)
2. Shri Birbal Meghwal, Government Dungar College, Bikaner (Member)
3. Shri Dharmveer Katewa, Government College, Sri Dungargarh (Member)
4. Shri Tanveer Hussain Kazri, BRG College, Sri Ganganagar (Member)
5. Shri S.R. Balan, G.H.S. Government College, Sujangarh (Member)
6. Dr. S.P. Sood , Ret. Prof. in Library Science, University of Rajasthan, Jaipur (External Member)
7. Dr. Ashwini Tiwari, In-Charge, Department of Library & Information Science, Maharshi Dayanand Saraswati University, Ajmer (External Member)



BACHELOR OF LIBRARY AND INFORMATION SCIENCE (B.L.I.Sc PROGRAMME)

Scheme of Examination

- 1. OBJECTIVE:** To train the students in the basics of professional skills and information knowledge management, so that they serve the society through an institution of library & information science. For fulfilling the main objective, the curriculum is designed to educate the students in the philosophy of librarianship, basic principles, fundamental laws, professional ethics, etc.; to enhance the students in the skills of information knowledge processing, organization and retrieval; to train them in the management of library & information centre; to enable the students to understand and appreciate the purposes of library & information centers in the changing social, cultural, technological and economic environment; to train the students in the basics of information science and technology.
- 2. DURATION:** The duration of the course leading to the Degree of Bachelor of Library and Information Science (B.L.I.Sc.) shall be of one academic year. The examination shall, ordinarily, be held in the month of April/May or on such dates as may be fixed by the University.
- 3.** The last date of receipt of admission-cum-examination forms and fees shall be fixed and notified by the University time to time.
- 4. ELIGIBILITY:** A candidate who fulfils the following conditions shall be eligible to seek admission in the course:

Who has passed graduation / P.G. in any stream with atleast 45% marks in aggregate of this University or any other University recognized as equivalent.
- 5.** A candidate, who disqualify in any theory paper[s] and pass in all practical papers shall need to **re-appear** for all the theory papers again (except Practical Papers) in next 2 consecutive years. The marks of the practical papers will be carried forward for the next attempts. A Candidate fails in any practical paper needs to reappear in all the papers in next 2 consecutive years as Ex-student.
- 6.** The **internal assessment awards** of a candidate who fails in any

examination shall be carried forward to the next examination concerned, provided that the candidate who has not obtained pass marks in the internal assessment for any paper(s) shall not be allowed to take examination in the said paper (s), unless he/she repeats the course in paper(s) concerned and obtains minimum pass marks in the internal assessment.

7. Twenty per cent (20%) marks, in each written and practical paper in year shall be assigned for **internal assessment**. The following criteria shall be followed for award of internal assessment:
 - i. The Department shall hold internal/house test of 10 marks in year for each paper. The marks obtained will be awarded to the candidate.
 - ii. The Department shall hold internal/house assignments of 10 or 5 marks as per paper[s] in year for each paper. The marks obtained will be awarded to the candidate.
8. A list of successful candidates shall be prepared on the basis of aggregate marks obtained in all the one year examinations, as the case may be, and shall be classified in division as under:
 - (a) Those who obtain 75% or more: 1st Division with Distinction
 - (b) Those who obtain 60% or more but less than 75%: 1st Division
 - (c) Those who obtain 50% or more but less than 60%: 2nd Division
 - (d) Those who obtain 40% or more but less than 50% : Pass.
9. The grace marks, if any, shall be awarded as per University rules concerned thereof.
10. Every student shall be examined in the subject (s) as laid down in the syllabus prescribed by the Academic Council, time to time. The question paper will be set by external/internal examiners.

The Head/In-Charge of the Department shall forward the internal assessment marks on the basis of class test, written assignment, class performance and attendance in the class, etc. to the Controller of Examinations, at least one week before the commencement of the annual examinations.
11. The **medium** of instructions and examination shall be English / Hindi.
12. The **minimum percentage of marks** to pass the examination in year

shall be -

- (i) 40% in each written paper and internal assessment, etc., separately;
- (ii) 40% in the total of examination.

13. The amount of examination fee to be paid by a candidate shall be as decided by the University, time to time.

14. The viva-voce examination (in paper no. 9) and/or training report, wherever applicable, shall be conducted jointly by the **internal and external examiners** to be appointed by the Head / In-Charge of the Department. The marks obtained by the candidate in the internal/viva-voce shall be taken into account when he/she appears in any future examination.

Paper	Title of Paper	Internal Assessment Marks	Examination's Marks	Total Max. Marks	Duration of Theory Exam.
BLIS-1	Foundations of Library and Information Science	20	80	100	3 Hours
BLIS-2	Knowledge Organization: Classification (Theory)	20	80	100	3 Hours
BLIS-3	Knowledge Organization: Cataloguing (Theory)	20	80	100	3 Hours
BLIS-4	Management of Library Information Centers and Institutions	20	80	100	3 Hours
BLIS-5	References, Information Services and Sources	20	80	100	3 Hours
BLIS-6	Information and Communication Technology (Theory)	20	80	100	3 Hours
BLIS-7	Knowledge Organization: Classification (Practical)	15	60	75	3 Hours
BLIS-8	Knowledge Organization: Cataloguing (Practical)	15	60	75	3 Hours
BLIS-9	Information and Communication Technology (Practical)	10	40	50	2 Hours

BACHELOR OF LIBRARY AND INFORMATION SCIENCE

SYLLABUS SESSION-2020-21

PAPER-1: FOUNDATIONS OF LIBRARY AND INFORMATIONSCIENCE

Maximum marks:
80

Pass marks: 32

Time: 3Hrs.

Note: The paper is divided into 4 units. The candidates are required to attempt 5 questions in all selecting 1 question from each unit (out of two internal choices). Question 1 is compulsory consisting of 8 short answer type questions spread over the whole syllabus. All questions carry equal marks.

Unit – I: Libraries as Social Institutions

Social and Historical Foundation of Library

Different Types of Libraries –Academic, Public, National, Special Libraries Characteristics, Objectives, Structure and Functions Development of Libraries with Special Reference to India

Library and Information Science Education in India

Role of Library in Formal and Informal Education

Unit – 2: Laws of Library and Information Science

Laws of Library Science

Implications of Five Laws of Library Science in Digital Environment

Unit – 3: Library Legislation and Library Profession

Library Legislation – Need and

Essential Features Library

Legislations in India

Intellectual Property Rights - Copyright Act, Delivery of Books Act.

Unit – 4: Professional Associations and Promoters of Library and Information Science

National Associations – ILA and IASLIC International Associations - ALA and IFLA

National Level Promoters – Raja Ram Mohan Roy

Library Foundation, UGC International Level Promoters –

PAPER-2: Knowledge Organization: Classification Theory

Maximum marks:

80

Pass marks: 32

Time: 3Hrs.

Note: The paper is divided into 4 units. The candidates are required to attempt 5 questions in all selecting 1 question from each unit (out of two internal choices). Question 1 is compulsory consisting of 8 short answer type questions spread over the whole syllabus. All questions carry equal marks.

Unit – 1: Library Classification

Library Classification- Meaning, Definition, Need and Purpose, Enumerative Classification, Almost Enumerative Classification, Almost Faceted Classification, Detailed Study of Colon Classification, Dewey Decimal Classification - Salient Features. Standard Schemes of Classification and their historical developments (CC, DDC),

Unit – II: Laws and Principles of Classification

Law of interpretation, Law of impartiality, Law of Symmetry, Law of parsimony, Law of Local Variation and Law of Osmosis. Canon of Characteristics, Principles of Helpful Sequence.

Unit – III: Devices and Notation in Classification

Devices in CC and DDC, Notation, Call Number – class number, book number and collection number.

Unit – IV: Main Class

Canonical Class and Basic Class. Five Fundamental Categories, PMEST, Isolates, Common Isolate-Kinds of Common Isolates, Phase Relation - Inter Subject, Intra Facet and Intra Array.

PAPER-3: Knowledge Organization: Cataloguing (Theory)

Maximum marks:

80

Pass marks: 32

Time: 3Hrs.

Note: The paper is divided into 4 units. The candidates are required to attempt 5 questions in all selecting 1 question from each unit (out of two internal choices). Question 1 is compulsory consisting of 8 short answer type questions spread over the whole syllabus. All questions carry equal marks.

Unit – 1: Library Cataloguing

Library Cataloguing- Need, Objectives and Types and Similar other tools: Bibliographies, indexes, accession register and shelf list. Physical and Inner forms of Catalogue including OPAC.

Unit – II: Types of Entries

Types of Entries in CCC and AACR-2: Main Entry, Added Entries, Normative Principles of Cataloguing.

Unit – III: Subject Cataloguing

Need, Purpose and functions, Principles of subject headings, Types of Subject Cataloguing Methods for derivation of subject headings: Chain Procedure, Sears List of Subject Headings.

Unit – IV: Codes and Standards

Comparative Study of Classified Catalogue Code with Additional Rules for Dictionary Catalogue Code and Anglo-American Cataloguing Rules-2(AACR-2).

Centralized and Cooperative Cataloguing.

Current Trends in Bibliographic Standardization, Description and Exchange: ISBD(G), ISBD(S), MARC.

Paper-4: Management of Library & Information Centers

Maximum marks: 80

Pass marks: 32

Time: 3Hrs.

Unit-I Fundamentals of Management

Concept, Definition & Scope, Management Styles & Approaches. , Function and Principles of Scientific Management, Human Resource Management, Organizational Structure, Library Personnel. Job description and analysis, Job evaluation.

Total Quality Management (TQM)

Unit-II Budgeting, Library Statistics & Reporting

Budgeting: Techniques & methods – Planning, Programming Budgeting System & Zero Based Budgeting. Budgeting: Concepts, Definition, Purpose, & Functions. Annual Report –Compilation, Contents & Styles, Library Statistics.

Unit-III Library House Keeping Operations

Different Sections of Library & Information center and their functions.

Collection Development and Management Policies, Acquisition of Reading material & their Processing. Serial Control, Circulation, Maintenance, Binding, etc. Stock verification- Policies and Procedures.

Unit-IV Planning of building of Library & Information Centers

Concept, Definition, Need, Purpose, Types . Policies, Procedures & Steps in Planning.

Building and Space Management. Planning of related infra structure.

Library standards, Library Rules.

Paper-5: Reference, Information Services and Sources

Maximum marks: 80

Pass marks: 32

Time: 3Hrs.

Unit-I Reference & Information Services.

Reference Service- Concept, Definition, Types, Reference Interview & Search Techniques .Information Services- Concept, Definition, Need, Trends and Products. Current Awareness Service (CAS) & Selective, Dissemination of Information (SDI)- Need Techniques . Bibliography Compilation and Translation Service.

Unit-II Information Systems & Services

National Information System: INSDOC, DECIDOC, NASSDOC, NISSAT- Their Functions, Services & Products. International Information Systems: AGRIS, MEDLARS, INSPEC-Their Function, Services & Products. Current Awareness Service (CAS) & Selective, Dissemination of Information (SDI)- Need Techniques .Bibliography Compilation and Translation Service.

Unit-III Information Users, Their Need and User Education:

Categories of Information Users. Information Needs: Definition, Models. Information Seeking Patterns. User Studies: Method, technique & Evaluation. Users Education, Goals & Objectives, Levels, Programmes, Techniques and Methods .

Unit-IV Reference and Information Sources

Documentary Sources of Information print (Ency....) and Non Print Nature, Characteristics, Utility and Evaluation of different types of Information Sources. Non Documentary Information Sources Human & Institutional Sources –Nature, Types, Characteristics & Utility Categories –Primary, Secondary & Tertiary Information Sources. Internet as a Source of Information, CD-ROM databases.

Paper-6: Information and communication technology

Maximum marks: 80

Pass marks: 32

Time: 3Hrs.

Unit-I Fundamentals of Computers

Historical development of computer .Generation of computer .Classification of computers: Super, Mainframe, Mini & Micro. Basic Components of computer: Input-Output device, CPU, Storage Device. Definition, Need, Components, scope, Objectives .Impact of IT on Society

Unit-II Library Automation and Information Technology

Concept, Planning and Implementations .Inhouse operations: Acquisition, circulation, serial control, OPAC .Library Automation Software Packing: Their Study & Features.

Unit-III Digital Libraries

Genesis, Definition, Objectives, Scope .Characteristics and Nature of Collection of Digital Library

Unit-IV Library & Information Centers Networking

History, Concepts and Methods. LAN, WAN & MAN .Specialized Networks: NICNET, INFLIBNET, DELNET. Internet and Intranet

Paper- 7: Knowledge Organization: Classification Practical

Maximum marks: 60

Pass marks: 24

Time: 3Hrs.

Note:

Classification of documents using “Colon classification (6th rev ed.), Ranganathan, Book Number Formula” and Dewey Decimal Classification (19th ed.), representing simple, compound and complex subjects

The paper will be divided into 2 parts:

Part-I: Colon Classification (6th rev ed.)

Part-II: Dewey Decimal Classification .

In each part, 3 questions will be set as detailed below:

Part-I : Colon Classification (CC)

All questions are compulsory 30 Marks

Q.-1 Prepare Class Number using Ranganathan Book Number of Five Titles out of Eight

(Simple title with Basic class & facets) 7.5Marks

Q.-2 Five title out of Eight.
(Titles having Rounds & Levels of facets, system & specials)

Q.-3 Prepare class numbers of Five titles out of Eight. 10 Marks
(Titles using Devices, Common Isolates, Phase Relation) 12.5 Marks

Part-II: DDC

All questions are compulsory 30 Marks

Q.-4 Five titles out of Eight to be classified:
(Simple title) 7.5 Marks

Q.-5 Five titles out of Eight to be classified:
(Title using Table, standards, Table Area sub divisions, subject devices etc.) 10 Marks

Q.-6 Five titles out of Eight to be classified:
(Title using various tables & devices etc.) 12.5 Marks

Paper- 8: Knowledge Organization: Cataloguing Practical

Maximum marks: 60

Pass marks: 24

Time: 3Hrs.

Practical Cataloguing of under mentioned types of document for making Classified Catalogue and a Dictionary Catalogue by using Classified Catalogue Code (5th Edition with the Amendments) and the 'Anglo-American Cataloguing Rules' II edition respectively along with 'Sears List of Subject Heading' for getting subject headings.

1. Books involving Personal, Shared and Collaborator (s) Authorship.
2. Books involving Pseudonymous Author.
3. Books involving Corporate Authorship.
4. Ordinary composite books.
5. Multivolume books
6. Periodical Publications (Simple).

Note: Complicated Foreign Personal Names, complicated periodicals and pseudoserries are to be omitted. This paper will have 5 titles in 3 sections . All are compulsory to attempt.

First 2 titles out of three will be catalogued according to CCC (Ed 5th with Amendments) Next two titles out of three will be catalogued according to AACR-II. The last fifth title will be a Simple Periodical to be catalogued either according to CCC or AACR-II.

PAPER 9 : INFORMATION AND COMMUNICATION

TECHNOLOGY (PRACTICAL)

Maximum marks: 40

Pass marks:16

Time: 2Hrs.

Note: The paper is divided into 4 units. The candidates are required to attempt 4 questions in all out of total 6 questions. All questions carry equal marks. Hands on experience with computer operation shall be preferred. The students shall be assessed by viva-voce, practical steps in the examination.

Unit 1: System Software: WINDOWS Operating System

Basics such as Desktop, My Computer, Control Panel, Windows Explorer, Accessories - Calculator and Paint.

Unit 2: Application Software: MS Word, MS PowerPoint, MS Excel

MS Word - Standard Toolbars, Creating a Document, Editing a Document, Formatting a Document, Mail Merge, Printing, etc.

MS PowerPoint - Creating Presentation Slides, Animation, Formatting / Adding Graphics, Slide Show, Customizing and Printing.

MS Excel - File creation, Editing, Inserting, Formatting, Printing, etc.

Unit 3: Library Management Software

Basics of WINISIS/SOUL

Unit 4: Online and Offline Searching

Basic Internet Searching

Advance Internet Search with Search Techniques

E-mail

Suggested Readings:

1. Ranganathan, S.R. Five Laws of Library Science, New Delhi : UBSPD, 1957.
 2. Ranganathan, S.R. Library manual, Mumbai : Asia, 1959.
 3. Ranganathan, S.R. Library development plan : a thirty year programme for India with draft bill New Delhi : University of Delhi, 1950
 4. Ranganathan, SR, ed. Free book service for all : an international survey, Mumbai : Asia, 1969
 5. Ranganathan, SR, ed. Free book service for all : an international survey, Mumbai : Asia, 1969
 6. Ranganathan, SR and Neelameghan, A, ed. Public Library system. Bangalore : Sarada Ranganathan Endowment, 1972
 7. Benge, Ronald. Libraries and cultural change. London : Clive Bingley, 1970.
 8. Rubin, Richard E. Foundations of library and Information science, New York : Neal-Schuman, 1998
 9. Hessel, A. History of Libraries Tr by Reuben Peiss. New York : Scarecrow, 1955
 10. White, Carl M. Ed. Bases of modern librarianship, New York : Pergaman, 1964
 11. Krishan Kumar. Library Organization, New Delhi : Vikas, 1986.
 12. Davis, D.W. Public Libraries as cultural and social centre, New York : Scarecrow, 1975.
- Suggested Readings:
13. Ranganathan, SR. Library Administration. 2nd ed. Mumbai : Sarada Ranganathan Endowment for Library Science, 1989.
 14. Lock, R.N. Library administration. 3rd ed. New York : Philosophical Library, 1965.
 15. Urwick, L. Elements of administration. 2nd ed. London : Pitman, 1947.
 16. Thompson, James. Introduction to university library administration. 3rd ed. London : Clive Bingley, 1979.
 17. Evans, G Edward. Management techniques for librarians. 2nd ed. New York : Academic, 1983.
 18. Kat, William A. Collection development : the selection of materials for libraries. New York : Holt, Rinehart & Winston, 1980.
 19. Wilson, LR and Tauber, MF. University library. New York : Columbia University, 1958.
 20. Peter, Claton and Gorman, G E. Managing information resources in libraries and information services : collection management in theory and practice. London : Fact, 2001.
 21. Kreizman, Karen. Establishing an information centre : a practical guide. London: Bowker-Saur, 1999.
 22. Waixel, Bob and Mc Kellen. A beginner's guide to the PC New Delhi : Affiliated East West, 1995.
 23. Leon, Alexis and Leon, Mathews. Fundamentals of information technology, Chennai : Leon Tech World.
 24. Deendayalu, R. Computer science, 2 Vol. New Delhi : TMH. 1990.
 25. Sinha, PK. Computer fundamentals: concept, systems and applications,

- 2nd ed. New Delhi : BPB, 1992.
26. Radhakrishnan, P. Computers and information technology. Hyderabad : High Tech.
 27. Croucher Phil. Communications and networks, 2nd ed. New Delhi : Affiliated East West, 1995.
 28. Chao, Chien C. Introduction to the microcomputer and its applications, New Delhi : Galgotia, 1995.
 29. Rowley, Jeniffer E. Computers for libraries. London : Clive Bingley, 1980
 30. Tedd, LA. Introduction to computer based library system. 2nd ed. London : Hyden, 1984.
 31. Karen, C and Perimutter, L, ed. The application of mini and micro computers in information, documentation and libraries. Amsterdam : Elsevier, 1995.
 32. Dewey, Melvil. Dewey Decimal Classification. 19th ed. 3 vol. New York: Forest Press, 1979.
 33. Ranganathan, SR. Colon Classification, 6th rev ed. Bangalore : Sarada Ranganathan Endowment for Library Science, 1963.
 34. Manual of the use of the DDC 20th ed. New York : Forest Press.
 35. Pandey, S K Sharma. Vyavaharik Dewey Decimal Vargikaran. New Delhi : Vidya Vihar, 1999.
 36. Parkhi S. Decimal classification and colon classification in perspective. Mumbai : Asia, 1964.
 37. Satija MP. Manual of practical Colon Classification. 3rd rev ed. New Delhi : Sterling 1995.
 38. Kothari, DV and Singh, VP. Kriyatmak vargikaran : dwibindu va dashamlav pranali. Jodhpur : Nidhi, 1991.
 39. Bhargava, GD. Granthalaya vargikaran. Bhopal : M.P. Hindi Grantha Academy, 1972.
 40. Satija, M.P. Prayogik dwibindu vargikaran (Practical Colon Classification); Tr by Ramakant Sharma. New Delhi : Ess Ess, 1992.
 41. Sehgal RL. Number building in DDC, UDC and CC. New Delhi : Ess Ess 1993.
 42. Katz, William A. Introduction to reference work. 2v. 6th ed. New York : McGraw Hill, 1992.
 43. Katz, Bill and Tarr, Andrea. Reference and information services : a reader, N.J. : Scarecrow, 1978.
 44. Shores L. Basic reference sources, Chicago : ALA, 1954.
 45. Foskett, DJ. Information service in libraries. 2nd ed. Connecticut : Archon, 1967.
 46. Ranganathan, SR. Reference service and bibliography. 2nd ed. Mumbai : UBSPD, 1960.
 47. Krishan Kumar. Reference service. New Delhi : Vikas, 1989.
 48. Guha, B. Documentation and information. 2nd Ed. Kolkata : World Press, 1983.
 49. Anglo-American Cataloguing Rules. 2nd rev. Ed. London : Library Association, 1978.
 50. Sears List of Subject Headings. 17th ed. New York : Wilson, 2000.
 51. Hunter Eric J. Examples illustrating AACR-2 (1988) revision, London : LA, 1989.
 52. Maxwell, Margaret F. Handbook for AACR-2 (1988) revision, Chicago :

- ALA, 1989
53. Krishan Kumar. An introduction to cataloguing practice : New Delhi : Vikas, 1993.
 54. Krishan Kumar. An introduction to AACR-2 New Delhi : Vikas, 1990
 55. Sehgal, R.L. Cataloguing manual AACR-2. New Delhi : Ess Ess.
 56. Sood, S.P. Kriyatmak suchikaran : A.A.C.R.-2. Jaipur : Raj, 2002.
 57. Girija Kumar and Krishan Kumar. Suchikaran ke siddhant. New Delhi : Vikas, 1976. Ranganathan, SR. Classified catalogue code with additional rules for dictionary catalogue code. 5th ed. Banglore : Sarada Ranganathan Endowment for Library Science, 1989.
 58. Ranganathan, SR. Cataloguing practice. 2nd ed. Mumbai : Asia, 1974.
 59. Bakewell, KCB. Manual of cataloguing practice. Oxford : Pergaman, 1974
 60. Coates, EJ. Subject catalogs : headings and structure. London : Library Association, 1960.
 61. Indian Standards Institution. Indian standard practice for layout of library catalogue code. Rev ed. 1967.
 62. Indian Standards Institution. Rules for making alphabetical indexes. New Delhi: ISI.
 63. IFLA. International Conference on Cataloguing Principles (Paris) 1961. Report. London : IFLA, 1968.
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 65. Shera JH and Eagen, MP, ed. Classified catalogue : basic principles and practice, Chicago : ALA, 1965.
 66. Kirshan Kumar. An introduction to cataloguing practice. New Delhi : Vikas, 1993.
 67. Vishwanathan, CG. Cataloguing theory and practice. 4th ed. New Delhi : Today and Tomorrow, 1970.
 68. Sood, S.P. Kriyatmak suchikaran : C.C.C. Jaipur : Raj, 2003
 69. Amba, Sanjeevi and Raghavan, K S. CDS/ISIS: a primer. New Delhi: Ess Ess, 1999.
 70. Chaudhary, G G and Chaudhary, Sudatta. Organizing information: from the shelf to the web. London: Facet, 2007.
 71. Chaudhary, G G and Chaudhary, Sudatta. Searching CD-ROM and online information sources. London: Library Association, 2000.
 72. Neelameghan, A and Lalitha, S K. Tutor+ : a learning and teaching package on hypertext link commands in WINISIS. Bangalore: Sarada Ranganathan Endowment for Library Science, 2001.
 73. Negus, Christopher. Linux Bible. New York: John Wiley, 2005.
 74. Simpson, Alan. Windows XP Bible. New York: John Wiley, 2004.
 75. Walkenbach, John, et al. Office 2007 Bible. New York: John Wiley, 2007.
 76. Winship, Ian and Mcnab, Alison. Student's Guide to the Internet. London: Library Association, 2000.
 77. UNESCO. CDS/ISIS for Windows: Reference Manual Version 1.5. Paris: UNESCO, 2004.

M.G.S. UNIVERSITY,

BIKANER

SYLLABUS

SCHEME OF EXAMINATION AND COURSES OF STUDY

FACULTY OF ARTS

M.A. DRAWING & PAINTING

M.A. PREVIOUS EXAMINATION – 2021

M.A. FINAL EXAMINATION - 2022



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SCHEME OF EXAMINATION

Each theory paper 3 Hrs. duration 100 Marks

Dissertation If any 100 Marks

1. The number of paper and the maximum marks for each paper practical shall be shown in the syllabus for the subject concerned. It will be necessary for a candidate to pass in the theory part as well as in the practical part (Whenever Prescribed) of a subject/Paper separately.
2. A candidate for a pass at each of the Pervious and the Final Examination shall be required to obtain (i) at least 36% marks in the aggregate of all the paper prescribed for the examination and (ii) at least 36% marks in practical (s) whenever prescribed the examination, provided that if a candidate fails to at least 25% marks in each individual paper work. Wherever prescribed, he shall be deemed to have failed at the examination not with standing his having obtained the minimum percentage of marks required in the aggregate for the examination. No division will be awarded at the Pervious Examination; Division shall be awarded at the end of the Final Examination combined marks obtained at the Pervious and the Final Examination taken together, as noted below:
First Division 60% of the aggregate marks taken together
Second Division 48% of the Pervious and the final Examination.
All the rest shall be declared to have passed the examination.
3. If a candidate clears any paper (s) Practical(s)/Dissertation Prescribed at the Pervious and or/final Examination after a continuous period of three years, then for the purpose of working out his division the minimum pass marks only viz 25% (36% in the case of practical) shall be taken into account in respect of such paper(s) Particle(S) Dissertations are cleared after the expert of the aforesaid period of three year, provided that in case where a candidate require more than 25% marks in order to reach the minimum aggregate as many marks out of those actually secured by him will be taken into account as would enable him to make the deficiency in the requisite minimum aggregate.
4. The Thesis/Dissertation/Survey Report/Field Work shall be types & written and submitted in triplicate so as to reach the office of the Register at least 3 weeks before the commencement of the theory examinations. Only such candidates shall be permitted to offer dissertation/Fields work/Survey Report/Thesis (if provided in the scheme of examination) in lieu of a paper as have secured at least 55% marks in the aggregate of all scheme and I and II semester examination taken in the case of semester scheme, irrespective of the number of paper in which a candidate actually appeared at the examination.

M.A DRAWING AND PAINTING

M.A. PREVIOUS

Time: 3 Hours

Theory Paper

Paper I Brief Studies of Eastern and Western Aesthetics 100 Marks

Paper II History of Indian Arts

100 Marks

Practical Paper (Any Two from the Following):

(a) Landscape Painting

80 Marks

(b) Portrait Painting

80 Marks

(C) Print Making

80 Marks

Submission of Work

40 Marks

M.A. Final

Theory Paper (Any two from the Following):

Paper III History & Philosophy of Modern Art	100 Marks
Paper IV Art in Education & Society	100 Marks
Paper V History of Western Art	100 Marks
Dissertation in lieu of Paper	100 Marks

Practical Paper (Any Two from the following):

(D) Study from life (Full figure)	80 Marks
(E) Graphic (Etching or Litho Serigraph)	80 Marks
(F) Composition	80 Marks
Submission of Work	40 Marks
Case Studies	100 marks

**M.A. PREVIOUS
PAPER-I BRIEF STUDIES OF EASTERN AND
WESTERN AESTHETICS**

Time: 3 Hours

100 Marks

UNITS I

1. Definition of Aesthetics for Eastern and Western Concept of Beauty.
सौन्दर्य की पश्चिमी, और पूर्वीय धारणाएँ ।
2. Plato प्लेटो। Aristotle अरस्तु। Auguastine ऑगस्टाइन। Leonardo da vinci.
लियोनार्दो द विन्सी। Baumgarten बॉमगार्टन। Hegel हीगेल ।
3. Schelling शैलिंग। Kant कान्ट। Freud फ्रायड। Tolsoty टाल्सटाय। Moorris Weitz
मूरिज वेज ।
4. Croce क्रोचे। G. Santayana जार्ज सेन्टाइना । S.K. Longe एस. के. लौंगर। I.A.
Richards आई. ए. रिचर्ड्स। Roger Fry रोजर फ्राय ।
5. Naty Shastra नाट्यशास्त्र। Ras Siddhant रस सिद्धान्त। Vatsyayana वात्स्यायन।
Vishnu Dharmottram विश्णु धर्मोत्तरम्। Shaiva शैव । Buddha बुद्ध। Rabindra
Nath Tagore रवीन्द्र नाथ टैगोर। A.K. Coomaraswamy आनन्द कुमार स्वामी ।

Books Recommended :

1. History of Western Aesthetics- by K.G. Gillbert
2. History of Western Aesthetics- by K. C. Pandey
3. History of Oriental Aesthetics- by Dr. K.C. Pandey
4. History or Aesthetic by Katherine Gilbert.
5. A Modern Book of Aesthetes by Melvin Rader.
6. Aesthetic Adventure-by William Gaunt.
7. Christian and Oriental Philosophy or Art-By A.K. Coomaraswamy.
8. Transformation of Nature Art-by A.K. Coomaraswamy.
9. Western Aesthetics-by Dr. K.D. Pandey.
10. Eastern Aesthetics-by Dr. K.D. Pandey.

**PAPER-II-HISTORY OF INDIAN ART
UNITS**

Time 3 Hrs.

100 Marks

1. Indian Painting-Pre-Historic, Mohanjodaro and Harapa, Jogimara.
2. Ajanta, Bagh, Sigirya, Pal and Jain School.
3. Rajasthani School, Pahari and Mughal.
4. Patna School, Raja Ravi verma, Renaissance, Amrita Shergill. Bengal
School Rabindra Nath Tagore, Avnindra Nath Tagore, Yamini Roy,
Nand Lal Bose
5. Bombay Group Bendre, K.K. Hebber, S. Chavda, Contemporay
Artists, M.F. Husain, K.H. Ara, F.N Suja, Ramkumar, Ramgopal
Vijayvargiya.

Books Recommended :

1. Indian Painting-by Percy Brown

2. Indian Painting-by M.S. Randhawa
3. The Art of India-by Stella Kramrisch
4. Indian Painting-by Galbraith
5. कला विकास : डॉ आर.ए. अग्रवाल
6. भारतीय चित्रकला का इतिहास : लेखक अविनाष बहादुर वर्मा
7. भारतीय चित्रकला : लेखक रायकृष्ण दास
8. भारतीय चित्रकला का इतिहास : प्रेमचन्द गोस्वामी
9. भारतीय चित्रकला एवं मूर्तिकला का इतिहास : रीता प्रताप

M.A. PREVIOUS
PRACTICAL PAPER A- LANDSCAPE PAINTING

80 Marks

Time 10 Hours two sessions 2½ hours in two consecutive Days, Landscape painting from sight in oil or water colour with proper handling of medium and Perspective Landscapes of Lanes. City scapes. Sky scapes and Hills capes should be painted. Study of bridges, Lake and light & shadows The Examiner should reach at the centre one hour before the beginning well. Whole the Exam. Should be conducted on the spot.

Size of the Paper : ½ Imperial

Medium - Oil Colour or water Colour

PAPER B- PORTRAIT PAINTING

80 Marks

Time 10 hours. Two Sessions of 2½ hours in two consecutive days. Two sittings every day with a break of 1 hour in between.

The examiner will send in instruction paper to the principal to be opened 24 hours before the fixed date for Examination, in which he or she will clearly explain about the model background etc. The Principal before Head of department of Drawing and Painting will open the instruction paper and handover him so that he or she can make arrangements for the same. Examiner should reach at the centre before the beginning of the of the exams.

size of the paper ½ imperial

Medium : Oil Colour or Water Colour

PAPER -C PRINT MAKING (LINO OR WOOD AND COLOGRAPH)

80 Marks

Size :Size of the graphic should not exceed. 10" × 8"/25×20cm

Time : 10 Hours Two sessions of 2½ hours in two consecutive days two sittings every day with a break of 1 hour in between. Examiner should reach at the centre before the beginning of the Examination. External Examiner and Internal Examiner will prepare the question paper. Which they put at best five topics from daily life.

Candidate will choose one topic from them and prepare a lay-Out on given drawing sheet in Black and white colour and submit to the Examiner in the first sitting and in the end the candidates will Submit their Preliminary Sketches and Block with the Final Prints.

Submission of Works :

40 Marks

Every Candidate Will have to Submit the following work one month before the commencement of the Annual Examination.

(i) 10 Submission of each practical Paper offered executed either in oil colour or water colour.

Size : Near about ½ Imp. Or larger.

(ii) In Paper B Submission, the candidate will submit 3 cast study in pencil, 2 In Monochrome and 5 in two colours Portraits studied from living models.

(iii) A Sketch-book Containing not less than 50 (Sketches) Paper, Pencil or Colour,-Sketches of Human, animal Study of trees, Lanes, Huts, Rocks Hills & human faces. Size : ¼ Imperial.

Marks on the submission work will be awarded internally by the Head of the Department of Drawing and Painting. The Work of the candidate will be retained by him for one month after the declaration of result and then returned. to the Candidate.

Examination answer sheets (Paintings) will be retained in the department and will be preserved at least for twelve months after the declaration of result. These should not be returned to the candidates.

General Instructions :

- (a) Candidate should Pass in Practical as well as in theory papers separately.
- (b) Practical Examinations Should be arranged one Month before the commencement of theory Examination paper and three periods for sketching in a week.
- (d) The practical Answer books shall be examined by one external and one internal examiner appointed on the recommended of the Head of the department as per exiting Practice.

M.A. FINAL
ANY TWO FROM THE FOLLOWING
Theory Paper III-History and Philosophy of Modern Art
UNITS

Time : 3 Hours

100 marks

1. The turning point in the 19th century, Neo-classicism, Romanticism
2. Impressionism, Neo-Impressionism and Nabism.
3. Post Impressionist Painting, Fauvism, Cubism and Expressionism
4. Constructivism and Other Significant Post- Cubist Movement
5. Metaphysical Painting. Dada, Surrealism, Abstract art and significant Contemporary Movement.

Books Recommended :

- 1 Dictionary of 12th century Art by Phaidon.
2. History of Impressionism-By John Rewalot.
3. Masters of Modern Art-by Alfred H.Bars.
4. Story of Modern Art by Sheldon Cheney
5. Modern Movements Art by R.H. Wilenski
6. Main Streams of Modern art-by John Canaday.
7. आधुनिक चित्रकला का इतिहास और दर्शन लेखक श्री र.वि. साखलकर
8. आधुनिक कला के प्रणता, लेखक डॉ राजेन्द्र वाजपेयी

PAPER IV-ART IN EDUCATION AND SOCIETY
UNITS

Time 3 Hours

100 marks

1. The Place of art In General Education. The Educational Value of Art Principles and aims of Teaching art and Art appreciation. What is good Art ?
2. planning art experiences, Visit to museums, Art Galleries Centers of art for painting and new concepts of art education. Organizing are exhibitions. Art and the Community. Art and International Understanding. The Place of art in society. Is art really so useless ?
3. The need and Methods of making society art-conscious social functions of art. How art has served man form the childhood of the human race. Art and Democracy. Democratic value of art.
4. Duties in the artists towards society. How art has helped in modern social life and thought ?
5. Importance of Art of Modern Industry. Art in the homes. Importance of art as a hobby. Art as an instrument for educating the mind.

Book Recommended :

1. Education art Art : Zeigfeld Edwin (UNESCO) 1953
2. Education Through Art : Herbet Read 3. Child Art : Viola
4. Creative and Mental growth : V. Lower elt. (Macmillian & Co.)
5. Sadial function Art: R.K.Mukherji
6. Art of Society : Herbern Read
7. Art in Industry : Herbern Read

PAPER V-STUDY OF WESTERN ART
UNITS

Time 3 Hours

100 marks

1. Pre historic Painting, Art of Egypt, Art of Crete and mycenia,Greek

- Art- Geometrical period to Hellenistic Period.
2. Etruscan and Roman Art, Early Christian Art, Byzantine Art
Romanesque Art, Gothic Art.
 3. Early Renaissance Period and High Renaissance Period.
 4. Baroque Art, Classical Baroque Art of France, British Painting
Baroque Art, Rococo Art
 5. Neoclassicism, British landscape Painting, Romanticism, Realism,
Pre-Raphaelism.

Book Recommended :

1. The Birth of Greek Art- Adre- malraux & Geroge Salles.
3. The Story of Art- Gombrich E.H.
4. The Rock pictures of Europe - Kuhn H.
5. A History of Western Art- Johnlay Sewell.
6. A History of Westen Art - Michaese levey.

Practical Papers

Practical (Any Two of the following) 80 Marks

Paper D Study form life (Full figure) 15 Hours

Duration: 15 Hours in 6 Sitting of 2½ hours each of 3 consecutive days. Two sitting every day with a break of 1 hour in between.

Size of Paper : Imperial size.

Medium : Oil Colour of water colour

Note : The External Examiner will send Practical question papers along with directions before commencement of Practical examination. The Internal examiner and the external Practical examiner will evaluate the practical work on the last day practical examination.

Paper E-GRAPHIC or Litho or Serigraph

80 Marks

Duration : 15 Hours 6 sittings of 2½ each on 3 consecutive days. Two sitting every day with a break of 1 hour in between.

Size of the graphic should not exceed 10"x8"/25x20cms

Candidate will submit their preliminary sketches and block along with the final prints.

Paper-F- Composition (Pictorial)

80 Marks

Duration : 15 Hours 6 Sitting of 2½ hours each consecutive days. Two sittings every day with a break of 1 hour in between. Medium : Oil Water colour or tempera.

The candidate will prepare a composition on a given subject primary sketch of the final composition will be done and submitted after sitting which will be attached to the final composition. Treatment many additional realistic or Modern. At least three figures should be arranged.

Note : The External Examiner will send Practical question papers along with directions before commencement of Practical examination. The Internal examiner and the external Practical examiner will evaluate the practical work on the last day practical examination.

Dissertation Work :

The Dissertation shall be submitted in triplicate to the Head of department at least three weeks before the commencement of the examination only such candidates shall be permitted to offer dissertation who have secured at least 55% Marks in the aggregate in M.A. Previous examination

Submission of Work: 40 Marks

Each Candidate will have to submit the following work one month before the commencement of the annual examination (Final)

(i) 10 Submission of each practical papers offered executed either in oil colour or water colour.

Size Near about full imperial of larger:

(ii) Five Original Compositions based on different modern trends on Imperial size paper or canvas.

(iii) A Sketch book Containing not Less than 50 Pencil or Colour Sketches group of human, Animals figures, huts lanes, Group trees and creative sketches .Size : ¼ Imperial :

Marks On the submission work will be awarded internal by the head of the department of Drawing & Painting. The work of the candidate will be retained by him for one Month after the declaration of the result and then returned to the candidate.

Case Studies : 100 Marks

The Subject of Case Studies work will allotted by the department on base of syllabus for post graduation course. The Students will study on detail through the year under the supervision of lecturer of the department. The student submit the detail analytical Case Studies report with photographs in three copies.

The report must be hand written and it should not be more then 100 pages. This report should be submit 15 days before to the commencement of the practical exam at the department

General Instructions:

- (a) Candidate should Pass Practical as well as in theory Paper separately.
- (b) Practical Examination should be arranged one month before the commencement of theory examinations. Examination answer sheets will be retained in the department and will be pre served at least for twelve months after the declaration of result. These should not be returned to the candidates.
- (c) Three should be 12 Period for each Practical and 6 Period for each Theory Papers plus three period for sketching in a week.
- (d) The Practical answer books shall be examined by one external and one internal examiner to be appointed on the recommendation of the Head of the department as per exiting Practice.
- (e) The department should also arrange for an educational tour to ancient and modern art centers like ajanta. Elora Elephanta, Khajurao Mahablipuram ,National exhibitions, Modern art galleries, Art College and Places suitable for outdoor