Faculty of Computer Applications

SYLLABUS FOR

Master of Computer Applications

(Semester II)
(Under Credit Based Continuous Evaluation Grading System)
Session: 2025-26

The Heritage Institution
KANYA MAHA VIDYALAYA JALANDHAR
(Autonomous)

KANYA MAHA VIDYALAYA JALANDHAR

SCHEME AND CURRICULUM OF EXAMINATION OF TWO-YEAR DEGREE PROGRAMME
PG DEPARTMENT OF COMPUTER SCIENCE AND APPLICATIONS
MASTER OF COMPUTER APPLICATIONS (MCA)
SEMESTER-II

Course Code	Course Title	Course Type	Credits		Marks				Examination time (in hours)
					Total	Ext.		CA	
			L-T-P	Total		L	P		
MCAL-2121	Full Stack Development	C	4-0-0	4	100	70	-	30	3
MCAL-2122	Advanced Database Management System	C	4-0-0	4	100	70	-	30	3
MCAL-2123	Machine Learning	C	4-0-0	4	100	70	-	30	3
MCAL-2124	Software Project Management	C	4-0-0	4	100	70	-	30	3
MCAL-2125 (Opt- II)	Theory of Computation (General Elective –II)	E	4-0-0	4	100	70	-	30	3
MCAP-2126	Programming Lab based on Advanced Database Management System	C	0-0-2	2	50	-	35	15	3
MCAP-2127	Programming Lab based on Full Stack Development	C	0-0-2	2	50	-	35	15	3
VACH-2401	Human Rights and Constitutional Duties	VAC	2-0-0	2	50	35	-	15	3
Total				**26**	**650**				

Options for General Elective-II										
Opt -I	MCAL-2125	Big Data Analytics and Business Intelligence								
Opt -II	MCAL-2125	Theory of Computation								
Opt -III	MCAL-2125	*Skill Oriented MOOCS (related to IT/AI/ Computer)								

***Skill Oriented MOOCS courses can be explored on Swayam Portal and other websites offering MOOCS with at least 4 credits, otherwise Dept. will provide a list of available MOOCS Courses.**

Note: Student can opt any of one General Elective Courses.

The Heritage Institution KANYA MAHA VIDYALAYA JALANDHAR
(Autonomous)

Master of Computer Applications
Programme Outcomes

1. Apply knowledge of core computing fundamentals, skills and domain knowledge to solve problems related to real life applications.

2. Select and apply appropriate techniques, resources, and modern computing tools to complex computing activities.

3. Enhance skills to analyze the problem and define logical modeling of solutions.

4. Effectively integrate and utilize contemporary I.T. tools across all computer applications.

5. Create and manage data through relational and non-relation databases using DBMS.

6. Learn latest web technologies and develop dynamic and responsive websites and web applications.

7. Involve in continuous learning and relearning various technical skills and adapt to up-and coming technologies and industry standards.

8. Apply statistical methods, machine learning algorithms and visualization technique for analysis of datasets.

9. Apply project management standards and guidelines for efficient, timely and quality development of software products.

10. Effective communication and presentation of technical information

11. Identify research literature to solve complex computing problems.

12. Show understanding with computing principles and utilize the same as a member, leader and team member in handling projects and working in multidisciplinary settings.

MASTER OF COMPUTER APPLICATIONS (SEMESTER – II)
(Two Year Degree Programme) (CBCEGS)
(Session 2025-26)
COURSE CODE: FULL STACK DEVELOPMENT
COURSE CODE: MCAL-2121

L-T-P: 4-0-0 **Max. Marks: 100**
Credits: 4
Examination Time: 3 Hours **Theory : 70**
CA: 30

Mid Semester Examination: 30% weightage
End Semester Examination: 70% weightage

Course Outcomes: After passing this course, the student will be able to:

CO1: Comprehend server-side applications using Node.js and Express.js, including RESTful APIs and middleware, to handle HTTP requests, routing, and error handling effectively.
CO2: Analyze the structure and behavior of React-based Single Page Applications (SPAs), leveraging components, state, props, lifecycle methods, and hooks to manage UI rendering and user interactions.
CO3: Evaluate and configure full-stack architectures using MERN/MEAN stacks, addressing cross-origin communication through CORS and proxies to ensure secure and efficient frontend-backend integration.
CO4: Design and deploy full-stack web applications with features such as file uploads, real-time updates, role-based access, and testing, utilizing tools like Multer, Socket.IO, Jest, Postman, and deployment platforms (Render, Vercel).

MASTER OF COMPUTER APPLICATIONS (SEMESTER – II)
(Two Year Degree Programme) (CBCEGS)
(Session 2025-26)
COURSE CODE: FULL STACK DEVELOPMENT
COURSE CODE: MCAL-2121

L-T-P: 4-0-0 **Theory : 70**
Examination Time: 3 Hours

Instructions for Paper Setter -
Eight questions of equal marks (14 Marks each) are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

Unit-I

Node.js and Express.js: Introduction to Node.js and npm, creating basics Node.js server, Understanding modules and package management in Node.js., Express framework basics, Middleware, REST API development, Handling JSON and URL-encoded data, Error handling Introduction to RESTful APIs and their principles, Using Express.js framework for developing web applications and APIs, Express routing & middleware, Route definition, HTTP request and response handling, Building RESTful API endpoints for CRUD (Create, Read, Update, Delete) operations.

Unit – II

Introduction to React and Single Page Applications (SPA), JSX syntax and transformation using Babel, Functional vs Class components, React Rendering Process and Virtual DOM, Creating reusable components, Component composition and nesting, Props: Passing data parent to child,, Introduction to state in React The useState hook: syntax and usage, Conditional rendering based on state, Handling user input and form data, React Lifecycle (old: componentDidMount etc. / new: useEffect), useEffect hook: dependencies, cleanup, multiple effects, Data fetching from external APIs, Basic error handling and loading indicators

Unit-III

What is Full Stack Development?, Overview of MERN and MEAN stacks, **CORS Configuration:** What is CORS and why it matters, Handling cross-origin requests in Express, CORS middleware and origin whitelisting, **Proxy Setup:** Setting up frontend proxies for development, Avoiding CORS issues in React/Angular,

Unit-IV

Testing: Unit testing (Jest for backend, React Testing Library for frontend), Postman for Pagination, Search, Filtering, Real-time updates with Socket.IO, Role-based permissions.
U**sing Multer for File Uploads:** Installing and configuring Multer, Accepting single/multiple files, Validating and filtering file types, Storing images locally vs. using cloud storage, B**ackend Deployment with Render:** Creating a production build, Environment variable setup.

Frontend Deployment with Vercel: Deploy React/Angular project, Setup environment variables and API URLs

Reference/Text Books:

1. *Node.js Design Patterns* by Mario Casciaro and Luciano Mammino,
2. *Learning React: Modern Patterns for Developing React Apps* by Alex Banks and Eve Porcello,
3. *Full-Stack React, TypeScript, and Node* by David Choi,
4. *Web Development with Node and Express: Leveraging the JavaScript Stack* by Ethan Brown,
5. *Testing JavaScript Applications* by Lucas Fernandes da Costa.

Signature of Course Teacher **Signature of Head of Department**

MASTER OF COMPUTER APPLICATIONS (SEMESTER – II)
(Two Year Degree Programme) (CBCEGS)
(Session 2025-26)
COURSE TITLE: ADVANCED DATABASE MANAGEMENT SYSTEM
COURSE CODE: MCAL-2122

L-T-P: 4-0-0 **Max. Marks: 100**
Credits: 4
Examination Time: 3 Hours **Theory : 70**
CA: 30

Mid Semester Examination: 30% weightage
End Semester Examination: 70% weightage

Course Outcomes: After passing this course, the student will be able to:

CO1: Apply advanced database concepts to design and manage efficient relational database systems.
CO2: Develop procedural database programs to enhance functionality and maintain data integrity. CO3: Understand and utilize various types of NoSQL databases for managing unstructured data. CO4: Perform advanced operations in document-oriented databases for scalable data management.

MASTER OF COMPUTER APPLICATIONS (SEMESTER – II)
(Two Year Degree Programme) (CBCEGS)
(Session 2025-26)
COURSE TITLE: ADVANCED DATABASE MANAGEMENT SYSTEM
COURSE CODE: MCAL-2122

L-T-P: 4-0-0 **Theory : 70**
Examination Time: 3 Hours

Instructions for Paper Setter -
Eight questions of equal marks (14 Marks each) are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

UNIT –I

Relational SQL Enhancements: Join types and subqueries, Set operations: UNION, INTERSECT, EXCEPT, Working with Indexes and Views.
Transaction Management: ACID properties, concurrency issues, locking protocols

UNIT –II

PL/SQL Enhancements: Structure, variables, data types, control statements, built-in functions, cursors (implicit and explicit), procedures, functions, packages, and exception handling. Triggers and Event Handling: Row-level vs Statement-level triggers. Introduction to Data Engineering: Big Data: Concept, characteristics, benefits, CAP theorem.

UNIT –III

NoSQL Databases: Need, characteristics, and classification (Key-Value, Document, Column-Family,Graph). MongoDB: Installation and setup, collections, CRUD operations, MongoDB shell, schema-less design.

UNIT –IV

Advanced MongoDB Operations: SQL-to-MongoDB query mapping, Projection, sorting, limiting, aggregation, Indexing strategies, Replication, sharding

Reference/ Textbooks :

1. C.J. Date, *An Introduction to Database Systems*, Pearson Education.
2. H. F. Korth & A. Silberschatz, *Database System Concepts*, McGraw-Hill.
3 Elmasri & Navathe, *Fundamentals of Database Systems*, Addison-Wesley.
4. Adam Fowler, *NoSQL for Dummies*, Wiley.
5. Pramod Sadalage & Martin Fowler, *NoSQL Distilled*, Pearson.
6. MongoDB, Inc., *MongoDB: The Definitive Guide*, O'Reilly Media.

Signature of Course Teacher **Signature of Head of Department**

MASTER OF COMPUTER APPLICATIONS (SEMESTER – II)
(Two Year Degree Programme) (CBCEGS)
(Session 2025-26)
COURSE TITLE: MACHINE LEARNING
COURSE CODE: MCAL-2123

L-T-P: 4-0-0 **Max. Marks: 100**
Credits: 4
Examination Time: 3 Hours **Theory : 70**
CA: 30

Mid Semester Examination: 30% weightage
End Semester Examination: 70% weightage

Course Outcomes: After passing this course, the student will be able to:

CO1: Comprehend the Machine Learning Techniques.

CO2: Compare and explain Linear Regression and Multiple Linear Regressions.

CO3: Understand the concepts of Clustering and Classification Techniques.

CO4: Comprehend the concepts of Artificial Neural Networks.

MASTER OF COMPUTER APPLICATIONS (SEMESTER – II)

(Two Year Degree Programme) (CBCEGS)
(Session 2025-26)
COURSE TITLE: MACHINE LEARNING
COURSE CODE: MCAL-2123

L-T-P: 4-0-0 **Theory : 70**
Examination Time: 3 Hours

Instructions for Paper Setter -
Eight questions of equal marks (14 Marks each) are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

UNIT-1

Introduction: Well-Posed learning problems, Basic concepts, Designing a learning system, Types of machine learning: Learning associations, Supervised learning, Unsupervised, Semi-supervised and Reinforcement learning, Data Pre-processing Technique

UNIT - II

Linear Regression, Relationship between attributes using Covariance and Correlation, Relationship between multiple variables: Regression (Linear, Multivariate) in prediction. Multiple Linear Regressions Polynomial Regression, Regularization methods, Categorical Variables in Regression.

Regression: Linear regression, Multiple regression, Polynomial regression. Nearest Neighbours,
Evaluation parameters.

UNIT - III

Classification: Bayesian learning, Logistic Regression, Decision Tree Learning: Entropy and Gini Index based decision tree**,** Support vector machines, and Evaluation parameters. Ensemblers, Naïve Bayes Classifier

Clustering: Distance Measures in Algorithmic Methods, Different clustering methods (Distance, Density, Hierarchical), Iterative distance-based clustering. **Classification:** Naïve Bayes Classifier, Model Assumptions, Probability estimation, Required data processing

UNIT - IV

Artificial Neural Networks: Basic Concepts of Artificial Neurons,Perceptron, Training a perceptron, Training a perceptron, Gradient Decent & Momentum Based Optimization, Back propagation Algorithm. Basic concepts of Genetic Algorithms, Basic Concepts of Convolutional Neural Networks.

References / Textbooks:

1 Bishop C., Pattern Recognition and Machine Learning, Springer-Verlag

2 Alpaydin E., Introduction to Machine Learning, MIT Press

3. Mitchell T.M., Machine Learning, McGraw Hill

4. Michie D.,Spiegelhalter D. J.,TaylorC. C., Machine Learning, Neural and Statistical Classification. Overseas Press

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MASTER OF COMPUTER APPLICATIONS (SEMESTER – II)
(Two Year Degree Programme) (CBCEGS)
(Session 2025-26)
COURSE TITLE: SOFTWARE PROJECT MANAGEMENT
COURSE CODE: MCAL-2124

L-T-P: 4-0-0 **Max. Marks: 100**
Credits: 4
Examination Time: 3 Hours **Theory : 70**
CA: 30

Mid Semester Examination: 30% weightage
End Semester Examination: 70% weightage

Course Outcomes: After passing this course, the student will be able to:

CO1: Understand and practice the process of project management
CO2: Develop the scope of work, provide accurate cost estimates and to plan the various activities.
CO3: Understand and use risk management analysis techniques that identify the factors that put a project at risk and to quantify the likely effect of risk on project timescales
CO4: Identify the resources and people required for a project and to produce a work plan and resource schedule.

MASTER OF COMPUTER APPLICATIONS (SEMESTER – II)
(Two Year Degree Programme) (CBCEGS)
(Session 2025-26)
COURSE TITLE: SOFTWARE PROJECT MANAGEMENT
COURSE CODE: MCAL-2124

L-T-P: 4-0-0 **Theory : 70**
Examination Time: 3 Hours

Instructions for Paper Setter -
Eight questions of equal marks (14 Marks each) are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

UNIT-I

Fundamentals: Basic Definitions, Project Stakeholders, Project Management Processes, Project Initiating Processes.

Project Planning - Identify Requirements, Creating the Work Breakdown structure, developing the Project Schedule, Project Cost Estimate, Planning Quality, Organizing the Project Team, Planning for Potential Risks

UNIT-II

Project Evaluation and Planning: Overview of Project Planning, Software processes and process models. Cost Benefit Analysis, Cash Flow Forecasting, Cost-Benefit Evaluation Techniques, Risk Evaluation.

Project costing, COCOMO 2, Project Sequencing and Scheduling Activities, Scheduling resources, Critical path analysis, Network Planning, Risk Management, Nature and Types of Risks, Managing Risks, Risk Planning and Control, PERT and Monte Carlo Simulation techniques.

UNIT-III

Project Execution and Management: Project Executing Processes, Acquiring and Developing the Project Team, Managing the Project Team, Managing Stakeholder Expectations, Directing and Managing the Project while assuring Quality.

Project Monitoring and Controlling Processes: Verifying and Controlling Scope, Managing Schedule and Cost, Controlling Quality, Monitoring and Controlling Risks. Integrated Change Control, Project Closing Process, Collecting Data, Visualizing Progress, Cost Monitor in greview techniques, Project termination review, earned value analysis, Change Control, Software Configuration Management (SCM), Managing Contracts, Types of Contracts and Stages in Contract Placement, Contract Management and Acceptance.

UNIT-IV

Quality Management and People Management: Introduction, Understanding Behaviour, Organizational Behaviour, Selecting The Right Person for The Job, Motivation, The Oldman – Hackman Job Characteristics Model, working in Groups, Organization and team structures, Decision Making, Leadership, Organizational Structures, Stress ,Health and Safety.
Overview of project management tools for software.

Reference / Text Books:

1. Robert K. Wysocki, "Effective Software Project Management", Wiley
2. Mathiazhagan P Sakthimuthiah K Richu A Vikkash.M, "Software Project Management", Alpha International Publication.
3. Ian Sommerville, Software Engineering, Seventh Edition, Pearson Education.
4. Chandramouli / Dutt, "Software Project Management", Pearson Education.
5. R.S. Pressman, Software Engineering: A Practitioner's Approach, Sixth Edition, Tata
6. McGraw-Hill.
7. Bob Hughes, Mike Cotterell, "Software Project Management", Tata McGraw Hill.
8. Royce, "Software Project Management: A Unified Framework, Pearson Education.

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MASTER OF COMPUTER APPLICATIONS (SEMESTER – II)
(Two Year Degree Programme) (CBCEGS)
(Session 2025-26)
COURSE TITLE: THEORY OF COMPUTATION
COURSE CODE: MCAL-2125

L-T-P: 4-0-0 **Max. Marks: 100**
Credits: 4
Examination Time: 3 Hours **Theory : 70**
CA: 30

Mid Semester Examination: 30% weightage
End Semester Examination: 70% weightage

Course Outcomes: After passing this course, the student will be able to:

CO1: Comprehend various grammars in the Chomsky hierarchy and their closure properties.
CO2: Define production rules for Context Free Grammar (CFG), Convert CFG into Chomsky and Greibach Normal Form.
CO3: Apply Pumping Lemma to identify membership of a language.
CO4: Construct computing machines like Finite Automata, Pushdown Automata, Turing machine, etc.

MASTER OF COMPUTER APPLICATIONS (SEMESTER – II)
(Two Year Degree Programme) (CBCEGS)
(Session 2025-26)
COURSE TITLE: THEORY OF COMPUTATION
COURSE CODE: MCAL-2125

L-T-P: 4-0-0 **Theory : 70**
Examination Time: 3 Hours

Instructions for Paper Setter -
Eight questions of equal marks (14 Marks each) are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

UNIT-I

Chomsky Hierarchy, regular expressions, Operations on Regular Sets, Regular grammars, Linear Grammar, equivalence of Regular Grammars, properties of regular languages, pumping lemma, Closure properties.

UNIT-II

Finite Automata – DFA, transition graphs, non-deterministic FA, equivalence of DFA and NDFA, Minimization of NFA, ε-NFA and its conversion into NFA, Mealy and Moore Machines.

Context Free Languages – Leftmost and rightmost derivation, parsing and ambiguity, Chomsky normal form, Greibach Normal form.

UNIT-III

Pushdown Automata – NDPDA, DPDA, context free languages and PDA, comparison of deterministic and non-deterministic versions, closure properties, pumping lemma for CFL

Context Sensitive Languages, Variations, Linear Bounded Automata, Closure Properties, The Kuroda Normal Form, One sided Context Sensitive Grammars.

UNIT-IV

Turing Machines, variations, halting problem, Post Correspondence Problem (PCP)

Properties of LL(k) and LR(k) grammars, Decidability, Recursive and Recursively Enumerable Languages, Closure properties.

References / Textbooks:

1. 1.K.L.P. Mishra and N. Chandrasekaran, “Theory of Computer Science, Third Edition”, PHI Learning Private Limited
2. 2.John E. Hopcroft, Rajeev Motwani, Jeffrey D. Ullman, “Introduction to Automata Theory”,Languages and Computation, Pearson Education.
3. 3.M. Sipser, “Introduction to the Theory of Computation”, Second Edition, Cengage Learning.
4. 4.K. V. N. Sunitha , N. Kalyani, “Formal Languages and Automata Theory”, McGraw-Hill
5. 5.Stephen Wolfram, “Theory and Applications of Cellular Automata”, World Scientifi
6. 6.G.E. Revesz, “Introduction to Formal Languages”, Dover Publications.
7. 7.M. A. Harrison, “Introduction to Formal Language Theory”, Addison-Wesley
8. 8.R.K. Shukla,” Theory of Computation”, Cengage Learning.
9. 9.Peter Linz, An Introduction to Formal Languages and Automata, Third Edition, Narosa Publishers.

Signature of Course Teacher **Signature of Head of Department**

MASTER OF COMPUTER APPLICATIONS (SEMESTER – II)
(Two Year Degree Programme) (CBCEGS)
(Session 2025-26)
COURSE TITLE: PROGRAMMIING LAB BASED ON ADVACNED DATABASE MANAGEMENT SYSTEM
COURSE CODE: MCAP-2126

L-T-P: 0-0-2 **Max. Marks: 50**
Credits: 2
Examination Time: 3 Hours **Practical : 35**
CA:15

Continuous Assessment: 30% weightage
End Semester Examination: 70% weightage

Lab Based on:

Advanced SQL Practices

- Execute complex joins and nested sub queries
- Perform set operations (UNION, INTERSECT, EXCEPT)
- Create and manage views and indexes

PL/SQL Programming

- Develop procedures, functions, and packages
- Implement cursors and exception handling
- Design and test triggers (row-level and statement-level)

NoSQL Database Concepts

- Install and configure MongoDB
- Perform CRUD operations using MongoDB shell
- Understand schema-less design through practical examples

Advanced MongoDB Operations

- Apply projection, sorting, limiting, and aggregation
- Implement indexing, replication, and sharding

Signature of Course Teacher **Signature of Head of Department**

MASTER OF COMPUTER APPLICATIONS (SEMESTER – II)
(Two Year Degree Programme) (CBCEGS)
(Session 2025-26)
COURSE TITLE: PROGRAMMIING LAB BASED ON FULL STACK DEVELOPMENT
COURSE CODE: MCAP-2127

L-T-P: 0-0-2 **Max. Marks: 50**
Credits: 2
Examination Time: 3 Hours **Practical : 35**
CA:15

Continuous Assessment: 30% weightage
End Semester Examination: 70% weightage

After passing this course, the student will be able to:

Lab Based on Full Stack Development:

1. **Working on Node.js**
   - Install Node.js and npm.
   - Create a basic Node.js HTTP server.
   - Use built-in and custom modules.
   - Set up an Express.js server with basic routing.
2. **REST API:**
   - Create RESTful routes for CRUD operations.
   - Handle JSON and URL-encoded data.
3. **React Setup and Components:**
   - Set up a React project using create-react-app.
   - Create and render functional/class components.
4. **State and Props:**
   - Use useState and props to manage and pass data.
   - Implement conditional rendering.
5. **Forms and Hooks:**
   - Handle user input and form submission.
   - Use useEffect for lifecycle behavior and data fetching.
6. **API Integration:**
   - Fetch data from Express API and display in React UI.
   - Implement loading/error states.
7. **MERN Stack Mini Project (Backend + Frontend):**
   - Build a simple full-stack application (e.g., Task Manager or Blog).

MASTER OF COMPUTER APPLICATIONS (SEMESTER – II)
(Two Year Degree Programme) (CBCEGS)
(Session 2025-26)
COURSE TITLE: HUMAN RIGHTS AND CONSTITUTIONAL DUTIES
COURSE CODE: VACH-2401

L-T-P: 2-0-0 **Max. Marks: 50**
Credits: 2
Examination Time: 3 Hours **Theory : 35**
CA: 15

Mid Semester Examination: 30% weightage
End Semester Examination: 70% weightage

Course Outcomes: After passing this course, the student will be able to:

CO1: Understand the concept, requirements and methodologies used to fulfil human aspirations
CO2: Understand and apply values to live in harmony with other human beings and society as a whole.
CO3: Understand about the balance required to live in harmony with nature.
CO4: Apply what they have learnt to their own self in real life settings to achieve mutual goals.

MASTER OF COMPUTER APPLICATIONS (SEMESTER – II)
(Two Year Degree Programme) (CBCEGS)
(Session 2025-26)
COURSE TITLE: HUMAN RIGHTS AND CONSTITUTIONAL DUTIES
COURSE CODE: VACH-2401

L-T-P: 2-0-0 **Theory : 35**
Examination Time: 3 Hours

Instructions for the Paper Setters –
Eight questions of equal marks (7 Marks each) are to be set, two in each of the four sections (A-D). Questions may be subdivided into parts (exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

UNIT-I

Human Rights : Meaning, Nature , Characteristics and Classification
International framework: United Nation Declaration of Human Rights

UNIT-II

Indian Perspective of Human Rights : Fundamental Rights
Protective Mechanism in India: The composition, Powers, Functions of National Human Rights Commission of India (NHRC)

UNIT-III

Human Duties : Meaning, Nature, Characteristics and Classification
Application of Human Duties in a Modern Professional life.

UNIT-IV

Fundamental Duties in the Indian Constitution
Fundamental Duties with special reference to Corporate Social Responsibility (CSR) and Ethical Business Practices.

References / Textbooks:

1. United Nation. The United Nations and Human Rights1945-1995.Geneva : United Nation Blue Books Series, Vol. VII, 1996.
2. Shastry, S.N. Introduction to Human Rights and Duties. Pune :University of Pune Press, 2011.
3. Deol , Satnam Singh. Human Rights in India-Theory and practice . New Delhi: Serials Publication,2011.
4. V.P. Srivastav and R.S. Narayan(ed.), United Nation on Human Rights ,Vol II, Indian Pub. Distributor , New Delhi, 2002.
5. Professional Ethics: A contemporary-based approach to understanding and applying business professional Ethics Wesley. E. Donahue, 2021
6. Professional Ethics and Human Values R.S. Naagrazan. New age International Publishers , New Delhi, 2006.
7. Corporate social responsibility in India: Cases and Development after the legal mandate: Nayan Mitra and Rene Schmidpeter, Atlantic Publisher 2017.

Signature of Course Teacher **Signature of Head of Department**