ACE
Engineering College

Ankushapur, Ghatkesar, Medchal, Hyderabad-501 301,T.S.

(An Autonomous Institution)

Department of CSE (Data Science)

Applicable from 2022-23 Admitted Batch

II YEAR II SEMESTER(R22)

S. No.	Course Code	Course	L	T	P	Credits
1	CS401PC	Discrete Mathematics	3	0	0	3
2	SM402MS	Business Economics & FinancialAnalysis	3	0	0	3
3	CS403PC	Operating Systems	3	0	0	3
4	CS404PC	Database Management Systems	3	0	0	3
5	CS405PC	Software Engineering	3	0	0	3
6	CS406PC	Operating Systems Lab	0	0	2	1
7	CS407PC	Database Management SystemsLab	0	0	2	1
8	CD401PC	Real-time Research Project/Societal Related Project	0	0	4	2
9	CS409PC	Node JS/ React JS/ Django	0	0	2	1
10	*MC409	Constitution of India	3	0	0	0
		Total	**18**	**0**	**10**	**20**

Course Code: - CS401PC **DISCRETE MATHEMATICS**

B.Tech. II Year II Sem. **L T P C**

3 0 0 3

Course Objectives:

- Introduces elementary discrete mathematics for computer science and engineering.
- Topics include formal logic notation, methods of proof, induction, sets, relations, algebraic structures, elementary graph theory, permutations and combinations, countingprinciples; recurrence relations and generating functions.

Course Outcomes:

- Understand and construct precise mathematical proofs
- Apply logic and set theory to formulate precise statements
- Analyze and solve counting problems on finite and discrete structures
- Describe and manipulate sequences
- Apply graph theory in solving computing problems

UNIT - I

Mathematical logic: Introduction, Statements and Notation, Connectives, Normal Forms, Theory of Inference for the Statement Calculus, The Predicate Calculus, Inference Theory of the Predicate Calculus.

UNIT - II

Set theory: Introduction, Basic Concepts of Set Theory, Representation of Discrete Structures,Relations and Ordering, Functions.

UNIT - III

Algebraic Structures: Introduction, Algebraic Systems, Semi groups and Monoids, Lattices asPartiallyOrdered Sets, Boolean Algebra.

UNIT - IV

Elementary Combinatorics: Basics of Counting, Combinations and Permutations, Enumeration of Combinations and Permutations, Enumerating Combinations and Permutationswith Repetitions, Enumerating Permutation with Constrained Repetitions, Binomial Coefficient, The Binomial and Multinomial Theorems, The Principle of Exclusion.

UNIT - V

Graph Theory: Basic Concepts, Isomorphism and Subgraphs, Trees and their Properties, Spanning Trees, Directed Trees, Binary Trees, Planar Graphs, Euler's Formula, Multi-graphs and Euler Circuits,Hamiltonian Graphs, Chromatic Numbers, The Four-Color Problem.

TEXT BOOKS:

1. Discrete Mathematical Structures with Applications to Computer Science: J.P. Tremblay, R. Manohar, McGraw-Hill, 1st ed.
2. Discrete Mathematics for Computer Scientists & Mathematicians: Joe l. Mott, AbrahamKandel,Teodore P. Baker, Prentis Hall of India, 2nd ed.

REFERENCE BOOKS:

1. Discrete and Combinatorial Mathematics - an applied introduction: Ralph.P. Grimald,Pearsoneducation, 5th edition.
2. Discrete Mathematical Structures: Thomas Kosy, Tata McGraw Hill publishing co.

Course Code: - SM402MS **BUSINESS ECONOMICS AND FINANCIAL ANALYSIS**

B.Tech. II Year II Sem. **L T P C**

3 0 0 3

Course Objective: To learn the basic business types

1. To understand the impact of the economy on business and firms specifically
2. To learn the measurement of elasticity of demand
3. To understand the concepts of basic concepts of fin coal accounting
4. To analyze the business from the financial perspective

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COURSE OUTCOME: After learning the contents of this paper the students must be able to

1. Understand the various forms of business
2. Understand the impact of economic variables on the Business
3. Understand the Demand, Supply, Production, Cost, Market Structure, Pricing aspects arelearnt
4. Study the firm's financial position by preparing the Financial Statements of a Company
5. Study the firm's financial position by analyzing the Financial Statements of aCompany

Unit – I: Introduction to Business and Economics

Business: Structure of Business Firm, Theory of Firm, Types of Business Entities, Limited LiabilityCompanies, Sources of Capital for a Company, Non-Conventional Sources of Finance. Economics: Significance of Economics, Micro and Macro Economic Concepts, Concepts and Importance of National Income, Inflation, Money Supply in Inflation, Business Cycle, Features and Phases of Business Cycle. Nature and Scope of Business Economics, Role of Business Economist, Multidisciplinary nature of Business Economics.

Learning outcome: Students can know what challenges experienced management are and how theycan be overcome. Factors affecting the choice of form of business organization. Critical evaluation ofthe forms of business organization. Understand Macroeconomic factors like National Income, Inflation, and Money supply how it influences the economy and business. Understand how business economics associated with other disciplinary.

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UNIT - II: Demand and Supply Analysis

Elasticity of Demand: Elasticity, Types of Elasticity, Law of Demand, Measurement and Significanceof Elasticity of Demand, Factors affecting Elasticity of Demand, Elasticity of Demand in decision making, Demand Forecasting: Characteristics of Good Demand Forecasting, Steps in DemandForecasting, Methods of Demand Forecasting. Supply Analysis: Determinants of Supply, Supply Function & Law of Supply.

Learning outcome: Understand the elasticity of demand of the product, different types, and measurement of elasticity of demand and factors influencing on elasticity of demand. Need for demandforecasting. To apply various statistical techniques for estimating demand for a product. Understand the determinants of supply and its functions. Understand the difference between demand and supply

UNIT - III: Production, Cost, Market Structures & Pricing

Production Analysis: Factors of Production, Production Function, Production Function with onevariable input,

two variable inputs, Returns to Scale, Different Types of Production Functions. Cost analysis: Types of Costs, Short run and Long run Cost Functions. Market Structures: Nature of Competition, Featuresof Perfect competition, Monopoly, Oligopoly, and Monopolistic Competition. Pricing: Types of Pricing, Product Life Cycle based Pricing, Break Even Analysis, and Cost Volume Profit Analysis.

Learning outcome: Understand how optimization of resources can be achieved in organisation. Iso-quantsand Iso-costs, different types of internal, external economies of scale and law of returns with appropriate examples. How to estimate and minimize cost of production and application of BEA.Understand various typesof competition prevailing in Markets. How pricing is fixed by various firms for their products and services.

UNIT - IV: Financial Accounting:

Accounting concepts and conventions, Accounting Equation, Double-Entry System of Accounting, Rules for maintaining Books of Accounts, Journal, Posting to Ledger, Preparation of Trial Balance, Elements of Financial Statements, and Preparation of Final Accounts.

Learning outcome: Understand the Purpose of Accounting. Importance of financial accounting in business planning and controlling. Know the Balance sheet Identity, and explain why a balance sheetmust balance. Objectives and requirements of financial statements. Identify the users of financial statements.

UNIT - V: Financial Ratios Analysis:

Concept of Ratio Analysis, importance, Liquidity Ratio, Turnover Ratios, Profitability Ratios, Solvency,

Leverage Ratios – Analysis and Interpretation (Simple Problems)

Learning outcome: Interpret financial position of firms on basis of liquidity, solvency & Profitability.Calculate and use a comprehensive set of measurements to evaluate a company's performance. Use popular ratios to analyse firms liquidity and the activity of inventory, accountsreceivable, accounts payable and total assets. Identify the norms of comparison used to evaluateratios. Understand the limitations of ratios as a toolof financial analysis.

TEXT BOOKS:

1. D.N. Dwivedi, "Managerial Economics", Vikas Publication House Pvt.Ltd, 2nd Edition,2012.
2. S.N. Maheshwari & S.K.Maheshwari, "Financial Accounting", Vikas Publication House Pvt.Ltd, 4thEdition, 2012.

REFERENCE BOOKS:

1. R.Narayana Swamy, "Financial Accounting- A managerial Perspective", Pearsonpublications, 1stIndian Reprint Edition, 2012.
2. J.V.Prabhakar Rao & P.V.Rao, "Managerial Economics & Financial Analysis", Maruthi Publishers,1st Revised Edition, 2011.
3. Kasi Reddy & Saraswathi, "Managerial Economics and Financial Analysis", PHIPublications, NewDelhi, 10th Revised Edition, 2012.
4. Varshney & Maheswari, "Managerial Economics", Sultan Chand Publishers, 1st RevisedEdition,2009.

WEB REFERENCES:

1. https:// www.slideshare.net/glory1988/managerial-economics-and- financial analysis.
2. https:// thenthata.web4kurd.net/mypdf/managerial-economics-and- financial analysis.
3. https:// bookshallcold.link/pdfread/managerial-economics-and-financial analysis.
4. https:// www.gvpce.ac.in/syllabi/Managerial Economics and financial analysis.

E TEXT BOOKS:

1. https:// books.google.co.in/books/about/Managerial economics and financial analysis.
2. http://www. Ebooktake. in /pdf/title/managerial-economics-and-financial analysis.
3. http://all4ryou.blogspot.in/2012/06/mefa-managerial-economics and financial analysis.
4. http://books.google.com/books/about/Managerial economics and financial analysis.
5. http://www.scribd.com/doc/37684926.

Course Code: - CS403PC **OPERATING SYSTEMS**

B.Tech. II Year II Sem. **L T P C**

3 0 0 3

Prerequisites:

1. A course on "Computer Programming and Data Structures".
2. A course on "Computer Organization and Architecture".

Course Objectives:

- Introduce operating system concepts (i.e., processes, threads, scheduling, synchronization,deadlocks, memory management, file and I/O subsystems andprotection)
- Introduce the issues to be considered in the design and development of operating system
- Introduce basic Unix commands, system call interface for process management,interprocesscommunication and I/O in Unix

Course Outcomes:

- Will be able to control access to a computer and the files that may be shared
- Demonstrate the knowledge of the components of computers and their respectiveroles incomputing.
- Ability to recognize and resolve user problems with standard operating environments.
- Gain practical knowledge of how programming languages, operating systems,andarchitectures interact and how to use each effectively.

UNIT - I

Operating System - Introduction, Structures - Simple Batch, Multiprogrammed, Time-shared, Personal Computer, Parallel, Distributed Systems, Real-Time Systems, System components, Operating System services, System Calls

Process - Process concepts and scheduling, Operations on processes, Cooperating Processes, Threads

UNIT - II

CPU Scheduling - Scheduling Criteria, Scheduling Algorithms, Multiple -Processor Scheduling. System call interface for process management-fork, exit, wait, waitpid, exec

Deadlocks - System Model, Deadlocks Characterization, Methods for Handling Deadlocks,Deadlock Prevention, Deadlock Avoidance, Deadlock Detection, and Recovery from Deadlock

UNIT - III

Process Management and Synchronization - The Critical Section Problem, SynchronizationHardware, Semaphores, and Classical Problems of Synchronization, CriticalRegions, Monitors **Interprocess Communication Mechanisms:** IPC between processes ona single computer system, IPC between processes on different systems, using pipes, FIFOs, message queues, shared memory.

UNIT - IV

Memory Management and Virtual Memory - Logical versus Physical Address Space, Swapping, Contiguous Allocation, Paging, Segmentation, Segmentation with Paging, DemandPaging, Page Replacement, Page Replacement Algorithms.

UNIT - V

File System Interface and Operations -Access methods, Directory Structure, Protection, FileSystemStructure, Allocation methods, Free-space Management. Usage of open, create, read, write, close, lseek, stat, ioctl system calls.

TEXT BOOKS:

1. Operating System Principles- Abraham Silberchatz, Peter B. Galvin, Greg Gagne 7thEdition,John Wiley.
2. Advanced programming in the UNIX environment, W.R. Stevens, Pearson education.

REFERENCE BOOKS:

1. Operating Systems- Internals and Design Principles, William Stallings, FifthEdition–2005,Pearson Education/PHI
2. Operating System A Design Approach- Crowley, TMH.
3. Modern Operating Systems, Andrew S. Tanenbaum 2nd edition, Pearson/PHI
4. UNIX programming environment, Kernighan and Pike, PHI/ Pearson Education
5. UNIX Internals -The New Frontiers, U. Vahalia, Pearson Education.

Course Code: - CS404PC **DATABASE MANAGEMENT SYSTEMS**

B.Tech. II Year II Sem. **L T P C**

3 0 0 3

Prerequisites: A course on "Data Structures".

Course Objectives:

- To understand the basic concepts and the applications of database systems.
- To master the basics of SQL and construct queries using SQL.
- Topics include data models, database design, relational model, relational algebra,transactioncontrol, concurrency control, storage structures and access techniques.

Course Outcomes:

- Gain knowledge of fundamentals of DBMS, database design and normal forms
- Master the basics of SQL for retrieval and management of data.
- Be acquainted with the basics of transaction processing and concurrency control.
- Familiarity with database storage structures and access techniques

UNIT - I

Database System Applications: A Historical Perspective, File Systems versus a DBMS, theData Model, Levels of Abstraction in a DBMS, Data Independence, Structure of a DBMS **Introduction to Database Design:** Database Design and ER Diagrams, Entities, Attributes, andEntity Sets, Relationships and Relationship Sets, Additional Features of the ER Model, Conceptual Design With the ER Model

UNIT - II

Introduction to the Relational Model: Integrity constraint over relations, enforcing integrityconstraints, querying relational data, logical database design, introduction to views, destroying/alteringtables and views.
Relational Algebra, Tuple relational Calculus, Domain relational calculus.

UNIT - III

SQL: QUERIES, CONSTRAINTS, TRIGGERS: form of basic SQL query, UNION, INTERSECT, and EXCEPT, Nested Queries, aggregation operators, NULL values, complex integrity constraints in SQL,triggers and active databases.
Schema Refinement: Problems caused by redundancy, decompositions, problems related to decomposition, reasoning about functional dependencies, First, Second, Third normal forms, BCNF, lossless join decomposition, multivalued dependencies, Fourth normal form, Fifth normal form.

UNIT - IV

Transaction Concept, Transaction State, Implementation of Atomicity and Durability, Concurrent Executions, Serializability, Recoverability, Implementation of Isolation,

Testing for serializability, Lock Based Protocols, Timestamp Based Protocols, Validation-Based Protocols, Multiple Granularity, Recovery and Atomicity, Log–Based Recovery, Recovery with Concurrent Transactions.

UNIT - V

Data on External Storage, File Organization and Indexing, Cluster Indexes, Primary and Secondary Indexes, Index data Structures, Hash Based Indexing, Tree based Indexing, Comparison of File Organizations, Indexes- Intuitions for tree Indexes, Indexed Sequential

Access Methods (ISAM),
B+ Trees: A Dynamic Index Structure.

TEXT BOOKS:

1. Database System Concepts, Silberschatz, Korth, McGraw hill, V edition.3rd Edition
2. Database Management Systems, Raghurama Krishnan, Johannes Gehrke, Tata Mc GrawHill

REFERENCE BOOKS:

1. Database Systems design, Implementation, and Management, Peter Rob & CarlosCoronel 7thEdition.
2. Fundamentals of Database Systems, Elmasri Navrate, Pearson Education
3. Introduction to Database Systems, C. J. Date, Pearson Education
4. Oracle for Professionals, The X Team, S.Shah and V. Shah, SPD.
5. Database Systems Using Oracle: A Simplified guide to SQL and PL/SQL, Shah, PHI.
6. Fundamentals of Database Management Systems, M. L. Gillenson, Wiley Student Edition.

Course Code: - CS405PC **SOFTWARE ENGINEERING**

B.Tech. II Year II Sem.

L	T	P	C
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Course Objectives

- The aim of the course is to provide an understanding of the working knowledge of thetechniques for estimation, design, testing and quality management of large software development projects.
- Topics include process models, software requirements, software design, software testing, software process/product metrics, risk management, quality management and UML diagrams

Course Outcomes

- Ability to translate end-user requirements into system and software requirements,using e.g.UML, and structure the requirements in a Software Requirements Document (SRD).
- Identify and apply appropriate software architectures and patterns to carry out highlevel designof a system and be able to critically compare alternative choices.
- Will have experience and/or awareness of testing problems and will be able to developa simpletesting report

UNIT - I

Introduction to Software Engineering: The evolving role of software, changing nature of software, software myths. **A Generic view of process**: Software engineering- a layered technology, a process framework, the capability maturity model integration (CMMI). **Processmodels**: The waterfall model, Spiral model and Agile methodology

UNIT - II

Software Requirements: Functional and non-functional requirements, user requirements, system requirements, interface specification, the software requirements document.

Requirements engineering process: Feasibility studies, requirements elicitation and analysis,requirements validation, requirements management.

UNIT - III

Design Engineering: Design process and design quality, design concepts, the design model.Creating an architectural design: software architecture, data design, architectural styles and patterns,architectural design, conceptual model of UML, basic structural modeling, class diagrams, sequencediagrams, collaboration diagrams, use case diagrams, component diagrams.

UNIT – IV

Testing Strategies: A strategic approach to software testing, test strategies for conventional software ,black-box and white-box testing, validation testing, system testing, the art of debugging. Metrics for Process and Products: Software measurement, metrics for software quality.

UNIT - V

Risk management: Reactive Vs proactive risk strategies, software risks, risk identification,risk projection, risk refinement, RMMM. **Quality Management:** Quality concepts, software quality assurance, software reviews, formal technical reviews, statistical software quality assurance, software reliability, the ISO 9000 quality standards.

TEXT BOOKS:

1. Software Engineering, A practitioner's Approach- Roger S. Pressman, 6th edition,McGraw HillInternational Edition.
2. Software Engineering- Sommerville, 7th edition, Pearson Education.

REFERENCE BOOKS:

1. The unified modeling language user guide Grady Booch, James Rambaugh, IvarJacobson,Pearson Education.
2. Software Engineering, an Engineering approach- James F. Peters, Witold Pedrycz, JohnWiley.
3. Software Engineering principles and practice- Waman S Jawadekar, The McGraw-HillCompanies.
4. Fundamentals of object-oriented design using UML Meiler page-Jones: Pearson Education.

Course Code: - CS406PC **OPERATING SYSTEMS LAB**

B.Tech. II Year II Sem. **L T P C**

0 0 2 1

Prerequisites: A course on "Programming for Problem Solving", A course on "ComputerOrganizationand Architecture".

Co-requisite: A course on "Operating Systems".

Course Objectives:

- To provide an understanding of the design aspects of operating system conceptsthroughsimulation
- Introduce basic Unix commands, system call interface for process management,interprocesscommunication and I/O in Unix

Course Outcomes:

- Simulate and implement operating system concepts such as scheduling, deadlockmanagement, file management and memory management.
- Able to implement C programs using Unix system calls

List of Experiments:

1. Write C programs to simulate the following CPU Scheduling algorithms a) FCFS b) SJF c) RoundRobin d) priority

2. Write programs using the I/O system calls of UNIX/LINUX operating system (open, read,write, close,fcntl, seek, stat, opendir, readdir)

3. Write a C program to simulate Bankers Algorithm for Deadlock Avoidance and Prevention.

4. Write a C program to implement the Producer – Consumer problem usingsemaphores usingUNIX/LINUX system calls.

5. Write C programs to illustrate the following IPC mechanisms a) Pipes b) FIFOs c) Message Queues d) Shared Memory

6. Write C programs to simulate the following memory management techniques a) Pagingb)Segmentation

7. Write C programs to simulate Page replacement policies a) FCFS b) LRU c) Optimal

TEXT BOOKS:

1. Operating System Principles- Abraham Silberchatz, Peter B. Galvin, Greg Gagne 7thEdition,John Wiley
2. Advanced programming in the Unix environment, W.R.Stevens, Pearson education.

REFERENCE BOOKS:

1. Operating Systems – Internals and Design Principles, William Stallings, FifthEdition–2005,Pearson Education/PHI
2. Operating System - A Design Approach-Crowley, TMH.
3. Modern Operating Systems, Andrew S Tanenbaum, 2nd edition, Pearson/PHI
4. UNIX Programming Environment, Kernighan and Pike, PHI/Pearson Education
5. UNIX Internals: The New Frontiers, U. Vahalia, Pearson Education

Course Code: - CS407PC DATABASE MANAGEMENT SYSTEMS LAB

B.Tech. II Year II Sem. **L T P C**

0 0 2 1

Co-requisites: "Database Management Systems"

Course Objectives:

- Introduce ER data model, database design and normalization
- Learn SQL basics for data definition and data manipulation

Course Outcomes:

- Design database schema for a given application and apply normalization
- Acquire skills in using SQL commands for data definition and data manipulation.
- Develop solutions for database applications using procedures, cursors and triggers

List of Experiments:

1. Concept design with E-R Model
2. Relational Model
3. Normalization
4. Practicing DDL commands
5. Practicing DML commands
6. A. Querying (using ANY, ALL, UNION, INTERSECT, JOIN, Constraints etc.)
   B. Nested, Correlated subqueries
7. Queries using Aggregate functions, GROUP BY, HAVING and Creation and dropping of Views.
8. Triggers (Creation of insert trigger, delete trigger, update trigger)
9. Procedures
10. Usage of Cursors

TEXT BOOKS:

1. Database Management Systems, Raghurama Krishnan, Johannes Gehrke, Tata McGraw Hill,3rd Edition
2. Database System Concepts, Silberschatz, Korth, McGraw Hill, V edition.

REFERENCE BOOKS:

1. Database Systems design, Implementation, and Management, Peter Rob & CarlosCoronel 7thEdition.
2. Fundamentals of Database Systems, Elmasri Navrate, Pearson Education
3. Introduction to Database Systems, C.J. Date, Pearson Education
4. Oracle for Professionals, The X Team, S. Shah and V. Shah, SPD.
5. Database Systems Using Oracle: A Simplified guide to SQL and PL/SQL, Shah, PHI.
6. Fundamentals of Database Management Systems, M. L. Gillenson, Wiley Student Edition.

Course Code: - CS409PC **NODE JS/ REACT JS/ DJANGO**

B.Tech. II Year II Sem.

L	T	P	C
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Prerequisites: Object Oriented Programming through Java, HTML Basics

Course Objectives:

- To implement the static web pages using HTML and do client side validation using JavaScript.
- To design and work with databases using Java
- To develop an end to end application using java full stack.
- To introduce Node JS implementation for server side programming.
- To experiment with single page application development using React.

Course Outcomes: At the end of the course, the student will be able to,

- Build a custom website with HTML, CSS, and Bootstrap and little JavaScript.
- Demonstrate Advanced features of JavaScript and learn about JDBC
- Develop Server – side implementation using Java technologies like
- Develop the server – side implementation using Node JS.
- Design a Single Page Application using React.

Exercises:

1. Build a responsive web application for shopping cart with registration, login, catalogand cart pages using CSS3 features, flex and grid.
2. Make the above web application responsive web application using Bootstrap framework.
3. Use JavaScript for doing client – side validation of the pages implemented in experiment1 andexperiment 2.
4. Explore the features of ES6 like arrow functions, callbacks, promises, async/await. Implement an application for reading the weather information from openweathermap.org and display the information in the form of a graph on the web page.
5. Develop a java standalone application that connects with the database (Oracle / mySql)and perform the CRUD operation on the database tables.
6. Create an xml for the bookstore. Validate the same using both DTD and XSD.
7. Design a controller with servlet that provides the interaction with application developed inexperiment 1 and the database created in experiment 5.
8. Maintaining the transactional history of any user is very important. Explore thevarious sessiontracking mechanism (Cookies, HTTP Session)
9. Create a custom server using http module and explore the other modules of Node JSlike OS,path, event.
10. Develop an express web application that can interact with REST API to performCRUDoperations on student data. (Use Postman)

11. For the above application create authorized end points using JWT (JSON Web Token).
12. Create a react application for the student management system having registration, login, contact, about pages and implement routing to navigate through these pages.
13. Create a service in react that fetches the weather information from openweathermap.org and the display the current and historical weather information using graphical representation usingchart.js
14. Create a TODO application in react with necessary components and deploy it into github.

REFERENCE BOOKS:

1. Jon Duckett, Beginning HTML, XHTML, CSS, and JavaScript, Wrox Publications, 2010
2. Bryan Basham, Kathy Sierra and Bert Bates, Head First Servlets and JSP, O'ReillyMedia, 2ndEdition, 2008.
3. Vasan Subramanian, Pro MERN Stack, Full Stack Web App Development withMongo, Express, React, and Node, 2nd Edition, A Press.

Course Code: -*MC409 **CONSTITUTION OF INDIA**

B.Tech. II Year II Sem. **L T P C**

3 0 0 0

COURSE OBJECTIVE: Students will be able to:

1. Understand the premises informing the twin themes of liberty and freedom from acivil rights perspective.
2. To address the growth of Indian opinion regarding modern Indian intellectuals' constitutional role and entitlement to civil and economic rights as well as the emergence of nationhood in the early years of Indian nationalism.
3. To address the role of socialism in India after the commencement of the BolshevikRevolution in 1917 and its impact on the initial drafting of the Indian Constitution.
4. To address the federal structure and distribution of legislative and financial powersbetween unions and states.
5. Understand the scheme of fundamental rights

COURSE OUTCOME: Students will be able to:

1. Discuss the growth of the demand for civil rights in India for the bulk of Indians before thearrival of Gandhi in Indian politics.
2. Discuss the intellectual origins of the framework of argument that informed the conceptualization of social reforms leading to revolution in India.
3. Discuss the circumstances surrounding the foundation of the Congress Socialist Party [CSP]under the leadership of Jawaharlal Nehru and the eventual failure of the proposal of direct elections through adult suffrage in the Indian Constitution
4. Discuss the passage of the Hindu Code Bill of 1956.
5. Discuss the judicial activism and its historic contributions in the

world**Unit - 1** History of Making of the Indian Constitution- History of Drafting

Committee. **Unit - 2** Philosophy of the Indian Constitution- Preamble Salient

Features

Unit - 3 Contours of Constitutional Rights & Duties - Fundamental Rights: Right to Equality Rightto Freedom Right against Exploitation Right to Freedom of Religion Cultural and Educational Rights Right to Constitutional Remedies Directive Principles of State Policy Fundamental Duties.

Unit - 4 Organs of Governance: Parliament, Composition, Qualifications and Disqualifications, Powersand Functions, Executive, President, Governor, Council of Ministers,Judiciary, Appointment and Transfer of Judges, Qualifications, Powers and Functions

Unit - 5 Local Administration: District's Administration head: Role and Importance, Municipalities: Introduction, Mayor and role of Elected Representative, CEO of Municipal Corporation. Panchayat raj:Introduction, PRI: Zila Panchayat. Elected officials and their roles, CEO ZilaPanchayat: Position and role. Block level: Organizational Hierarchy (Different departments), Village level: Role of Elected and Appointed officials, Importance of grass rootdemocracy

Unit - 6 Election Commission: Election Commission: Role and Functioning. Chief Election Commissioner and Election Commissioners. State Election Commission: Role and Functioning. Institute and Bodies for the welfare of SC/ST/OBC and women.

TEXT BOOKS:

1. The Constitution of India, 1950 (Bare Act), Government Publication.
2. Dr. S. N. Busi, Dr. B. R. Ambedkar framing of Indian Constitution, 1st Edition, 2015.
3. M. P. Jain, Indian Constitution Law, 7th Edn., Lexis Nexis, 2014.
4. D.D. Basu, Introduction to the Constitution of India, Lexis Nexis, 2015.

REFERENCE BOOKS:

1. Rajeev Bhargava (ed), Ethics and Politics of the Indian Constitution, Oxford UniversityPress, New Delhi, 2008.
2. Granville Austin, The Indian Constitution: Cornerstone of a Nation, Oxford UniversityPress, Oxford, 1966.
3. Zoya Hassan, E. Sridharan and R. Sudarshan (eds), India's Living Constitution: Ideas,Practices, Controversies, Permanent Black, New Delhi, 2002.
4. Subhash C. Kashyap, Our Constitution, National Book Trust, New Delhi, 2011.

WEB REFERENCES:

1. Cec.Ugc. Reference Consortium for Educational Communication, New Delhi, India.
2. https://legislative.gov.in/constitution-of-india.
3. https://www.refworld.org/docid/3ae6b5e20.html.
4. http://164.100.47.193/Refinput/Research_notes/English/04122019_153433_1021204140.pdf

E TEXT BOOKS:

1. An Introduction to the Constitution of India : Author : M.V.Pylee, Vikas Publishing House(PVT) Limited.
2. The Constitution of India, Analysis and Interpretation. Author : Kall Pada Chakravarti,Prentice Halls.
3. Indian Constitution and Indian Polity. Author : S.G.Subramanian, Pearson Publication.