Course Outcomes (II Year) 2019-20 I Sem

Course Name: Mathematics – III

NO	Course Outcome	Taxonomy
C211.1	Solve linear system of equations and calculate the Eigen values and Eigen vectors of the given square matrices.	Apply
C211.2	Apply Cayley – Hamilton theorem to find the inverse and powers of a square matrix. Discuss the nature of the quadratic form.	Apply
C211.3	Use the numerical techniques find solution of algebraic and transcendental Equations.	Apply
C211.4	Estimate the interpolating value of the function using Numerical techniques.	Evaluate
C211.5	Construct the best fit of curves for the given data and Evaluate definite integrals using Newton cotes Formula.	Apply
C211.6	Utilize numerical methods to find numerical solution of ordinary and partial differential equations.	Apply

Course Name: Database Management Systems

NO	Course Outcome	Taxonomy
C212.1	Create relational database management system for different applications.	Create
C212.2	Identify the data models for relevant problems.	Remember
C212.3	Design entity relationship and translate entity relationship diagrams into data bases and prepare SQL queries on the respect data.	Create
C212.4	Develop the normalization for different application software	Create
C212.5	Explain basic issues of transaction processing and concurrency control.	Understand
C212.6	Compare the basic database storage structures and access techniques: file organizations, indexing methods: B -tree, and hashing.	Analyse

Course Name: Discrete Mathematics

NO	Course Outcome	Taxonomy
C213.1	Apply mathematical concepts and logical reasoning to solve problems in different fields of Computer science and information technology.	Apply
C213.2	Describe sets, relations, functions, and discrete structures.	Understand
C213.3	Discriminate, identify and prove the properties of groups and subgroups.	Understand
C213.4	Apply basic counting techniques to solve combinatorial problems	Apply
C213.5	Discriminate between an Eulerian graph from a Hamilton graph for use in solving Mathematical problems	Understand
C213.6	Apply the concepts in courses like Computer Organization, Cryptography, Artificial Intelligence.	Apply

Course Name: Basic Electrical and Electronics Engineering

NO	Course Outcome	Taxonomy
C214.1	Impart a basic knowledge of electrical quantities such as current, voltage, power, energy, frequency and analysis of basic DC and AC circuits used in electrical and electronic devices.	Analyse

C214.2	Understand the working principle, construction, Classification applications of DC machines.	Understand
C214.3	Understand the working principle, construction, Classification applications of AC machines.	Understand
C214.4	Describe the working principle and characteristics of PN Junction diode, Zener diode, Half wave Rectifier and Full wave Rectifier	Understand
C214.5	Illustrate the characteristics of BJT and FET	Apply
C214.6	Discuss RC Oscillators, LC Oscillators, Differential Amplifiers, characteristics and applications of operational amplifiers	Understand

Course Name: Digital Logic Design

NO	Course Outcome	Taxonomy
C215.1	Differentiate various number systems, binary codes	Understand
C215.2	Solve the Boolean Expressions using basic postulates of Boolean algebra.	Apply
C215.3	Solve the Boolean Expressions using k-maps and other minimization methods .	Apply
C215.4	Design different combinational circuits.	Create
C215.5	Analyze different Sequential circuits.	Analyze
C215.6	Understand different types of Programmable Logic Devices and Transistor Logic Circuits.	Understand

Course Name: Managerial Economics and Financial Analysis

NO	Course Outcome	Taxonomy
C216.1	Explain therole and responsibilities of a managerial economist in modern business scenario.	Understand
C216.2	Predict the demand of a productby using demand forecasting methods.	Apply
C216.3	Calculate the Break Even Point (BEP) with the help ofproduction and cost analysis.	Apply
C216.4	Explain their learningsabout competitive markets and business economic environment.	Understand
C216.5	Prepare the financial statements and analyze financial position of the firm.	Create
C216.6	Discuss the sources of capital and allocation of funds for businessundertaking.	Understand

Course Name: Database Management Systems Laboratory

NO	Course Outcome	Taxonomy
C217.1	Design databases different engineering applications	Create
C217.2	Evaluate information from data bases	Evaluate
C217.3	Develop programs using procedures for accessing the data and manipulation.	Create
C217.4	Design user interfaces and reports for the databases	Create
C217.5	Evaluate the SQL queries using Commands	Evaluate
C217.6	Design the ER diagrams for different engineering applications	Create

Course Name: Basic Electrical and Electronics Engineering Laboratory

NO	Course Outcome	Taxonomy
C218.1	Explain the concept of circuit laws and network theorems and apply them to laboratory measurements.	Apply

C218.2	Be able to systematically obtain the equations that characterize the performance of an electric circuit as well as solving both DC Machines and single phase transformer.	Apply
C218.3	Acknowledge the principles of operation and the main features of electric machines and their applications.	Analyse
C218.4	Design and experiment with various application circuits using diodes	Create
C218.5	Design and experiment with rectifier circuits	Create
C218.6	Design the characteristics of different semiconductor devices like BJT, FET experimentally	Create

Course Outcomes (III Year) 2019-20 I Sem		
Course Name: Operating Systems		
NO	**Course Outcome**	**Taxonomy**
C311.1	Explain the role of Operating System, its functions and types	Understand
C311.2	Illustrate the concepts of process, Multi processing, Thread and Multi threading	Analyse
C311.3	Compare the performance of various CPU scheduling algorithms	Evaluate
C311.4	Outline different ways to handle the deadlocks and process synchronization	Analyse
C311.5	Compare and contrast various memory management techniques	Evaluate
C311.6	Describe the concepts of File system, I/O management, protection and security	Understand
Course Name: Computer Networks		
NO	**Course Outcome**	**Taxonomy**
C312.1	Analyse types of networks, network topologies and functions of each layer in OSI, TCP/IP reference models.	Analyse
C312.2	Analyse types of switching and transmission media with real time applications.	Analyse
C312.3	Describe functions of data link layer and explain data link layer protocols.	Understand
C312.4	Classify routing and congestion control algorithms and analyse how to assign IP addresses for given network	Analyse
C312.5	Describe transport layer design issues and protocols of transport layer.	Understand
C312.6	Describe application layer design issues and protocols of application layer.	Understand
Course Name: Object Oriented Analysis and Design		
NO	**Course Outcome**	**Taxonomy**
C313.1	Design the solutions to the complex problems using object oriented Approach	Create
C313.2	Explain classes, objects and responsibilities of the problem domain	Understand
C313.3	Explain Conceptual model of UML	Understand
C313.4	Create Structural Modeling to the given problem using UML concepts	Create
C313.5	Analyse Behavioral modelling Diagrams	Analyse
C313.6	Develop Behavioral modeling to the given problem using UML concepts	Create
Course Name: Principles of Programming Languages		
NO	**Course Outcome**	**Taxonomy**
C314.1	Choose software development process and software design models	Analyze
C314.2	Apply data types and type systems of various programming languages.	Apply
C314.3	Analyze the structure of program and computation	Analyze
C314.4	Analyze the concepts of programming languages.	Analyze
C314.5	Apply functional programming languages and their syntaxes	Apply

C314.6	Apply logic programming languages and their syntaxes.	Apply

Course Name: Software Testing

NO	Course Outcome	Taxonomy
C315.1	Understand the basic testing procedures	Understand
C315.2	List transaction flows ,data flow testing, their techniques and implementation comments in software testing	Remember
C315.3	Understand domains and interface testing and their testability tips.	Understand
C315.4	develop paths, regular expressions and logic based testing	Create
C315.5	Design and implement state graph, state testing, good state graph, bad state graph and their testability tips	Create
C315.6	Describe graph matrices, matrix properties and node reduction algorithm	Understand

Course Name: Introduction to Big Data

NO	Course Outcome	Taxonomy
C316.1	Demonstrate client – Server architecture and illustrate the components of cloud.	Apply
C316.2	Assess and Process Data on Distributed File System	Evaluate
C316.3	Design Job Execution in Hadoop Environment	Create
C316.4	Develop Big Data Solutions using Hadoop Eco System	Create
C316.5	Analyze Info sphere Big Insights Big Data Recommendations.	Analyze
C316.6	Develop a Map Reduce Environment	Create

Course Name: Object Oriented Analysis & Design and Software Testing Laboratory

NO	Course Outcome	Taxonomy
C317.1	design UML diagrams to the College information system using UML notations and object oriented approach	Create
C317.2	develop UML diagrams to the Hostel management using UML notations and object oriented approach	Create
C317.3	create UML diagrams to the ATM system using UML notations and object oriented approach	Create
C317.4	demonstrate the programs and its failures	Apply
C317.5	support in generating test plan, test cases and test suites	Evaluate
C317.6	Analyze of Testing Tools	Analyze

Course Name: Operating Systems Laboratory

NO	Course Outcome	Taxonomy
C318.1	Choose the best CPU scheduling algorithm for a given problem instance	Evaluate
C318.2	Build code to for file allocation and file organization techniques	Create
C318.3	Assess the performance of page replacement algorithms	Evaluate
C318.4	Analyze various classical Synchronization problems	Analyze
C318.5	Classify various memory management techniques	Analyze
C318.6	Develop algorithm for deadlock avoidance and detection	Create

Course Name: Social Values and Ethics

NO	Course Outcome	Taxonomy

C319.1	Discuss the ethical values and social context of problems	Understand
C319.2	Outline the social responsibilities of an engineer, rights and qualities of moral Leadership.	Analyze
C319.3	Explain philosophy of Life and Individual qualities	Understand
C319.4	Discuss the core values that shape the ethical behavior of an engineer.	Understand
C319.5	Develop appropriate technologies and management patterns to create harmony in professional and personal life.	Create
C319.6	Outline environment conservation, enrichment and sustainability	Analyze

Course Outcomes(IV Year) 2019-20 I Sem

Course Name: Management Science

NO	Course Outcome	Taxonomy
C411.1	Explain the basic concepts of management in modern contexts.	Understand
C411.2	Define organization structures and principles.	Remember
C411.3	Demonstrate production and marketing aspects.	Apply
C411.4	Outline the roles and responsibilities of Human Resource Manager.	Analyze
C411.5	Formulate strategies in the modern management.	Create
C411.6	Compare the modern management practices based on the requirement of the projects.	Evaluate

Course Name: Grid & Cloud Computing

NO	Course Outcome	Taxonomy
C412.1	Classify Grid and Cloud Computing Services such as PASS, SAAS, and IAAS	Understand
C412.2	Explain cloud architecture and applications on different cloud platforms	Understand
C412.3	Compare grid architecture and applications on different platforms	Analyze
C412.4	Summarize various grid and cloud computing tools	Evaluate
C412.5	Compare various security models in the grid and the cloud environment	Evaluate
C412.6	Design grid computing techniques to solve large scale scientific problems	Analyze

Course Name: Information Security

NO	Course Outcome	Taxonomy
C413.1	List the information security requirements for a client and server	Remember
C413.2	Explain cryptographic algorithms, authentication and security issues	Understand
C413.3	Develop algorithms and methods for web security with IPV4 and IPV6.	Create
C413.4	Analyze the Security and legal issues towards information security.	Analyse
C413.5	Assess the fundamentals of secret and public cryptography.	Evaluate
C413.6	Design a secure network with available solutions like PGP, SSL, etc.	Create

Course Name: Mobile Application Development

NO	Course Outcome	Taxonomy
C414.1	Describe mobile application software development tools	Understand
C414.2	Use various widgets in mobile applications	Apply
C414.3	Compare various layouts in mobile application design	Analyse
C414.4	Use external resources in mobile applications	Apply

| C414.5 | Build mobile application with selection widgets, dialogs and Fragments | Create |
| C414.6 | Design and develop menus, database and notifications in mobile applications | Create |

Course Name: Software Architecture

NO	Course Outcome	Taxonomy
C415.1	Able to understand the basic concepts of software architecture and software architecture Business cycle.	Understand
C415.2	Understand the various architectural styles with case studies	Understand
C415.3	Define various quality attributes of software architecture and explain the techniques to them.	Remember
C415.4	Understand the concepts of various architectural patterns and some design patterns.	Understand
C415.5	Acquire solid foundation in the field of designing and documenting Software architecture.	Create
C415.6	Use well-understood paradigms for designing new systems	Create

Course Name: Software Project Management

NO	Course Outcome	Taxonomy
C416.1	To understand the concepts of Conventional Software Management Performance, models and Software Economics.	Understand
C416.2	To Evaluate and improve the software processes to achieve required quality.	Evaluate
C416.3	To understand the concepts about principles of modern software management.	Understand
C416.4	To design and to integrate life cycle phases and artifacts of various process to model a software based architecture.	Create
C416.5	To classify the process workflow, analyse about periodic status assessment, planning and project organization responsibilities.	Analyze
C416.6	To recognize about the project control and process instrumentation using metrics and indicators.	Understand

Course Name: Grid & Cloud Computing Laboratory

NO	Course Outcome	Taxonomy
C417.1	Design and Implement applications on the Microsoft Azure.	Create
C417.2	Design and Implement applications on the Zoho cloud.	Create
C417.3	Develop software's using and Google Play Store.	Create
C417.4	Implement grid Security architecture.	Evaluate
C417.5	Develop Globus tool kit and develop applications.	Create
C417.6	Implement Google drive effectively and efficiently.	Evaluate

Course Name: Mobile Application Development Laboratory

NO	Course Outcome	Taxonomy
C418.1	Setup applications on mobile application development environment	Create
C418.2	Operate mobile applications on handheld devices	Apply
C418.3	Develop various widgets in mobile applications	Create
C418.4	Design mobile applications with various layouts	Create
C418.5	Build mobile application along with Media	Create
C418.6	Design and develop menus in mobile applications	Create