



BACHELOR OF COMPUTER APPLICATION		
SEMESTER-I		
COURSE NAME	COURSE CODE	COURSE OUTCOME
Basic Statistics and Introductory Probability Theory	ST1CMT31	CO1-Organize the data CO 2-Solve Central Tendency and Dispersion CO3-Examine the Relationship between variables and Regression. CO4-Develop Probability Theory CO5- Interpret Probability using Distribution Function
Discrete Mathematics -1	MM1CMT03	CO1-Develop Propositional logic. CO2- Formulate the fundamentals of Sets and functions CO3-Examine Number Theory and Cryptosystem CO4-Analyse Relations
Fine Tune Your English	EN1CC01	CO1: Improve practical phrasing using grammar CO2: Distinguish the different realms of grammar in its accurate form CO3: Explain the functional usage of language CO4: Create sentences in connected narrative CO5: Develop ability to use English in formal communication
Computer Fundamentals and Digital Principles	CA1CRT01	CO1-Outline the fundamentals of Computer Systems CO2-Classify Operating System and Computer Network CO3-Solve the problems of Number System Conversions CO4-Model combinational and sequential circuits CO-5-Categorize flip-flops

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Methodology of Programming and C Language	CA1CRT02	CO1-Illustrate the fundamentals of programming languages. CO2-Avail character set, data types and operators. CO3-Distinguish flow control statements. CO4-Assess arrays, functions and pointers. CO5-Categorize functions, structures and memory allocation.
Software Lab I	CA1CRP01	CO1-Develop programs on input-output functions CO2-Solve programs using control structures CO3-Set up programs based on arrays and string CO4-Frame functions and structures CO5-Utilize pointers and dynamic memory allocation
<b>SEMESTER 2</b>		
Discrete Mathematics II	MM2CMT03	CO1-Develop Graph theory CO2- Evaluate Trees CO3- Interpret the Operations using Boolean Algebra CO4-Solve the Matrix Operations
English- Issues That Matter	EN2CC03	CO1- Explain the psychological burden of war CO2- Perceive the importance of free speech CO3- Evaluate the crisis of marginalized and subaltern groups CO4- Discover the importance of ecological conservation CO5-Analyse the narratives about the experience of refugees



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Database Management Systems	CA2CRT03	CO1-Illustrate the architecture of DBMS CO2-Interpret ER and relational model CO3-Experiment the operations of SQL Queries. CO4-Assess normalization on functional dependency CO5-Study transaction control, database security and authorization
Computer Organization and Architecture	CA2CRT04	CO1-Relate Operational Concepts CO2-Outline the architecture of CPU CO3-Compartmentalize Memory Modules CO4-Differentiate Flynn's Classification of computers CO5-Perceive Pipeline phases
Object Oriented Programming Using C++	CA2CRT05	CO1-Identify the structure of OOPS CO2-Make use of Classes and objects CO3-Inspect constructors and destructors CO4-Differentiate inheritance and the principles of abstract Classes CO5-Explore polymorphism and files
Software Lab II	CA2CRP02	CO1-Develop Programs on Polymorphism. CO2-Practice Friend Functions and Constructors. CO3-Inspect Programs on Inheritance CO4-Avail DDL, DML, DCL in SQL CO5-Experiment with Nested Queries and Stored Procedure

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SEMESTER 3		
Advanced Statistical Methods	ST3CMT32	CO1-Interpret the Probability Theory Using Distributions CO2-Apply Sampling Distributions CO3-Examine Estimation Techniques CO4- Evaluate Hypothesis
Computer Graphics	CA3CRT06	CO1-Examine the Working of Display Systems CO2-Categorize Algorithms for Output Primitives CO3-Differentiate Geometric Transformations And 2D Viewing CO4-Explain Three Dimensional Concepts CO5-Identify Computer Animation Techniques
Microprocessor and Pc Hardware	CA3CRT07	CO1-Indicate the Architecture and Pin Diagram Of 8085 Microprocessor. CO2-Practice Instruction Sets Of 8085 Microprocessor CO3-Explore Components of Motherboard. CO4-Explain Features and Functions of HDD. CO5-Classify Memory Modules
Operating Systems	CA3CRT08	CO1- Interpret the fundamentals of the operating system. CO2- Exhibit process management and CPU Scheduling CO3- Explain about process coordination and deadlocks. CO4- Determine memory management strategies CO5- Explore storage management and file systems
Data Structures Using CPP	CA3CRT09	CO1-Interpret the Concepts of Data Structures

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		CO2-Outline Linear Data Structures CO3-Pertain Dynamic Concepts of Memory CO 4-Express Tree Data Structures CO5-Classify File Organization Methods
Software Lab III	CA3CRP03	CO1-Expand Programs on Arrays CO2-Devise Programs on Stack and Queue. CO3-Make Use of Linked List CO4-Formulate Data Hierarchy with Trees CO5-Construct Programs for Access and Modification of Data
<b>SEMESTER 4</b>		
Operations Research	MM4CMT03	CO1-Illustrate Operations Research CO2-Solve Linear Programming Problems CO3-Assess Transportation and Assignment Problems CO4- Inspect Game Theory Problems
Design And Analysis Of Algorithms	CA4CRT10	CO1-Demonstrate Algorithm Design Techniques CO2-Summarize the Recursive Methods of Divide and Conquer CO3-Practise Greedy Approach for Problem Solving CO4-Use Dynamic Programming CO5-Identify Applications of Backtracking
System Analysis And Software Engineering	CA4CRT11	CO1-Examine System Analysis, Design and Development. CO2-Categorize System and Software Life Cycle

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		Models CO3-Interpret Requirement Elicitation Techniques. CO4-Inspect Software Design Methodologies CO5-Distinguish System Testing Tools
LINUX Administration	CA4CRT12	CO1-Study the Fundamentals of Linux Architecture CO2-Compare Process Commands CO3-Examine Shell Programming CO4-Demonstrate the Roles of Linux System Administrator. CO5-Distinguish Various Servers
Web Programming Using PHP	CA4CRT13	CO1-Construct Static Web Pages CO2-Asses the Scripting Languages CO3-Avail PHP Fundamentals CO4-Distinguish Server-Side Scripting Functions of PHP CO5-Classify MySQL Functions for Database Connectivity
Software Lab IV	CA4CRP04	CO1-Experiment Linux Commands CO2-Evolve P Shell Scripts to Solve Problems. CO3-Build Static Web Pages with HTML and CSS CO4-Make Programs using JavaScript And PHP. CO5-Employ MySQL Database.
<b>SEMESTER 5</b>		
Computer Networks	CA5CRT14	CO1-Differntiate OSI and TCP/IP Network Models. CO2-Identify Multiplexing, Transmission Media and Switching.

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		CO3-Asses Data Link Layer CO4-Compare Network and Transport Layer CO5-Explain Application Layer Protocols and Security
IT and Environment	CA5CRT15	CO1-Relate People in Environment. CO2-Compare E-Learning Technologies. CO3-Familiarize Cyber Laws in India. CO4-Importance of Green Computing CO5-Adopt Human Rights National Perspective.
Java Programming Using LINUX	CA5CRT16	CO1-Summarize the Fundamentals of Java Programming CO2-Make Use Of OOPS CO3-Explore Multi-Threading, Interfaces and Packages CO4-Experiment with Event Handling. CO5-Build Applets and JDBC Programs
Computer Fundamentals, Internet and MS Office (Open Course)	CA5OPT02	CO1-Summarize the Fundamentals of OS And Networks CO2-Outline Client Server Communication CO3-Make Use of MS Word CO4-Develop Computing Skills in Excel CO5-Build Power Point Presentation Skills
Software Lab V	CA5CRP05	CO1-Evolve Programs on Class Concepts. CO2-Solve Problems of Inheritance and Interfaces. CO3-Practise The Principles of Exception Handling, Multithreading CO4-Make GUI with SWING CO5-Construct Applet Programs.

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Software Development Lab I	CA5CRP06	CO1-Recognize the Requirements for The Proposed System CO2-Select SDLC Model for The Project. CO3-Utilize the Project Management Concepts. CO4-Make an Environment Sustainable Project. CO5-Test and Implement the Model Developed
<b>SEMESTER 6</b>		
Cloud Computing	CA6CRT17	CO1-Infer Elements of Parallel Computing. CO2-Inspect Pros and Cons of Virtualization. CO3-Prioritize Cloud Reference Model. CO4-Construct Distributed Applications Using Aneka Architecture CO5-Utilize the Applications of Cloud Computing.
Mobile Application Development -Android	CA6CRT18	CO1-Familiarize Android Layouts CO2-Emerge User Interfaces for The Android Platforms. CO3-Perceive the Concepts of Activity and Services. CO4-Develop Mobile Database Applications CO5-Illustrate Data Interchange Format
Data Mining	CA6ELT01	CO1-Illustrate Data Warehousing and Mining Principles. CO2-Demonstrate OLAP Technology and Data Pre-Processing CO3-Compare Classification Algorithms CO4-Survey the Performance of Clustering Algorithms CO5-Examine Data Mining Solutions for Different Applications
Software Lab VI &Seminar	CA6CRP07	CO1-Learn the New Developments in The IT Sector. CO2-Broaden Presentation and Communication Skill. CO3-Build Confidence for Public Speaking.

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		CO4-Design User Interfaces for The Android Platform CO5-Evolve Android Apps with SQLite
Software Development Lab II	CA6CRP08	CO1-Recognize the Requirements for The Proposed System CO2-Select SDLC Model for The Project. CO3-Utilize the Project Management Concepts. CO4-Make an Environment Sustainable Project. CO5-Test and Implement the Model Developed



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