**Course Outcomes: DSC-1A Computer Fundamentals**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| CO1 | Understand the concept of input & output devices ofComputer | PO1 | K2 |
| CO2 | Learn the functional units and classify types of computers, how they process information and how individual computers interact with other computing systems and devices | PO4 | K2 |
| CO3 | Understand and operating system and its working andsolve common problems related to operating systems | PO1 | K2 |
| CO4 | Apply the uses of basic word processing, spreadsheet, and presentation Graphics software skills | PO7 | K3 |
| CO5 | Study to use the Internet safely, legally, and responsibly | PSO2 | K3 |

**Course Outcomes: DSC-2A Problem Solving using C**

| Sl No. | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| CO1 | In-depth understanding of various concepts of Clanguage. | PO1, PSO1 | K2 |
| CO2 | Ability to read, understand and trace the executionof programs. | PO2 | K3 |
| CO3 | Ability to debug a program. | PO2 | K3 |
| CO4 | Skill to write program code in C to solve various real-worldproblems. | PSO4 | K3 |

**Course Outcomes: DSC-3A DIGITAL ELECTRONICS**

| Sl No. | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| **CO1** | Examine the structure of number systems and perform the conversion among different number systems. | **PO1, PO3** | **K4** |
| **CO2** | Illustrate reduction of logical expressions using Boolean algebra, k-map and tabulation method and implement the functions using logic gates. | **PO3, PSO5** | **K3** |
| **CO3** | Design and analyses synchronous and asynchronous sequential circuits using flip-flops | **PO4, PO5, PO6** | **K6** |
| **CO4** | Implement combinational logic circuits using programmable logic devices. | **PO9, PO7** | **K3** |
| **CO5** | Examine the structure of various number systems and its application in digital design. | **PO8** | **K4** |
| **CO6** | Ability to identify basic requirements for a design application and propose a cost-effective solution | **PO10** | **K2** |

**Course Outcomes: DSC-1A Practical -I: Computer Fundamental Lab**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| **CO1** | Identify the peripheral devices of computer | **PO1** | **K2** |
| **CO2** | Ability to use of MS-Office | **PO7** | **K3** |
| **CO3** | Understanding the use of Internet | **PSO2** | **K2** |

**Course Outcomes: DSC-2A Practical -II: Problem solving using C Lab**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| **CO1** | To develop simple C programs | **PO2** | **K6** |
| **CO2** | To Implement C program using Arrays, Structures, File & pointers | **PO7, PSO4** | **K3** |
| **CO3** | To understand the execution of simple program & File program | **PO2** | **K2** |
| **C04** | Able to develop Macro programs | **PO2** | **K6** |

**Course Outcomes: DSC-3A Practical -III: Digital Electronics Lab**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| **CO1** | An ability to construct, analyze and troubleshoots simple sequential circuits | **PO2** | **K6** |
| **CO2** | An ability to design and troubleshoot a simple state machine | **PO2, PSO2** | **K6** |
| **CO3** | An ability to measure and record the experimental data, analyze the results, and prepare a formal laboratory report | **PSO3** | **K4** |
| **CO4** | Construct basic combinational circuits and verify their functionalities. Learn about counter, shift registers, basic gates | **PO2, PSO3** | **K6** |
| **CO5** | To understand the basic digital circuits and to verify their operation | **PO2, PSO3** | **K2** |

**Course Outcomes: DSC-1B DISCRETE MATHEMATICS**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| **CO1** | To understand sets and perform operations and algebra on sets | **PO2, PO7** | **K2** |
| **CO2** | Determine properties of relations, identify equivalence and partial order | **PO2** | **K2** |
| **CO3** | Identify functions and determine their properties | **PO2** | **K2** |
| **CO4** | Understand the basic principles to determine probabilities | **PO2** | **K2** |
| **CO5** | Determine when a function is 1-1 and "onto" | **PO2** | **K3** |

**Course Outcomes: DSC-2B OBJECT ORIENTED PROGRAMMING IN C++**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| **CO1** | Describe OOP's concepts | **PO2** | **K2** |
| **CO2** | Use functions and pointers in your C++ program | **PO2** | **K3** |
| **CO3** | Understand tokens, expressions, and control structures | **PO2** | **K2** |
| **CO4** | Explain arrays and strings and create programs using them | **PO2** | **K2** |
| **CO5** | Describe and use constructors and destructors | **PO2** | **K2** |

**Course Outcomes: DSC-3B DATABASE MANAGEMENT SYSTEM**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| **CO1** | Describe the fundamental elements of relational database management systems | **PO2, PSO2** | **K2** |
| **CO2** | Explain the basic concepts of relational data model, entity-relationship model, relational database design, relational algebra, and SQL. | **PO2, PO4** | **K2** |
| **CO3** | Design ER-models to represent simple database application scenarios | **PO6, PSO4** | **K6** |
| **CO4** | Design the ER-model to relational tables, populate relational database and formulate SQL queries on data | **PO2** | **K6** |
| **CO5** | Construct the database design by normalization, Familiar with basic database storage structures and access techniques: file and page organizations, indexing methods including B tree, and hashing | **PO7, PSO4** | **K6** |

**Course Outcomes: DSC-1B PRACTICAL-IV: DISCRETE MATHEMATICS LAB**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| **CO1** | Ability to apply mathematical logic to solveproblems | **PO2, PO7** | **K3** |
| **CO2** | Understand sets, relations, functions | **PO2** | **K2** |
| **CO3** | Able to use logical notations to define and reasonabout fundamental mathematical concepts | **PO2** | **K3** |
| **CO4** | Able to formulate problems and solve recurrence relations | **PO2** | **K6** |

| | | | |
|---|---|---|---|
| **CO5** | Able to model and solve real world problems using Graphs and trees | **PO2** | **K3** |

**Course Outcomes: DSC-2B PRACTICAL-V: OBJECT ORIENTED PROGRAMMING IN C++ LAB**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| **CO1** | Demonstrate class object concepts by using C++ | **PO2, PSO1** | **K3** |
| **CO2** | To implement C++ programs using Inheritance and Polymorphism | **PO2** | **K3** |
| **CO3** | Demonstrate the significance of constructors and destructor | **PO2** | **K3** |
| **CO4** | Implement function and operator overloading using C++ | **PO2** | **K3** |
| **CO5** | Develop programs using Stream I/Operator Overloading | **PO2** | **K6** |

**Course Outcomes: DSC-3B PRACTICAL-VI: DATABASE MANAGEMENT SYSTEM LAB**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| **CO1** | Ability to design and implement a database schema for given problem | **PO2, PSO2** | **K3, K6** |
| **CO2** | Apply the normalization techniques for development of application software to realistic problems. | **PO2, PO4** | **K3** |
| **CO3** | Ability to formulate queries using SQL DML/DDL/DCL commands. | **PO6, PSO4** | **K6** |
| **CO4** | Ability to normalize the database & understand the Internal data structure | **PO2** | **K2** |

**Course Outcomes: DSC-1C COMPUTER ORIENTED STATISTICAL METHODS**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| CO1 | Understand the concepts of probability and distributions to some case studies. | PO2, PO7 | K2 |
| CO2 | Evaluate Mathematical Expectation and DiscreteProbability Distributions | PO2, PO7 | K5 |
| CO3 | Apply Continuous Normal Distribution and Fundamental Sampling Distributions. | PO2, PO7, PSO3 | K3 |
| CO4 | Analyze testing hypothesis of Sample Mean andSample Proportion. | PO2, PO7 | K4 |
| CO5 | Understand the concept of Stochastic Processes andMarkov Chains | PO2, PO7 | K2 |

**Course Outcomes: DSC-2C DATA STRUCTURE & FILE PROCESSING**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| CO1 | Understand basic and data structures dealingwith algorithm development using C++. | PO1, PSO2 | K2 |
| CO2 | Apply search and sort techniques concord withreal-time computational problems. | PO2, PSO2 | K3 |
| CO3 | Analyze data structures dealing with algorithmdevelopment viz. stacks, queues, lists, trees, and graphs. | PO2, PSO4 | K4 |
| CO4 | Construct algorithmic approaches in real timecomputational environment. | PO2 | K6 |
| CO5 | Analyze non-linear data structure tree. | PO9, PSO3 | K4 |
| CO6 | Understand representation, operations, and traversal mechanisms to implement the concept of a graph. | PO3, PSO4 | K2 |

**Course Outcomes: DSC-3C OPERATING SYSTEM**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| CO1 | Analyze various scheduling algorithms. | PSO1, PO3, PSO4 | K 4 |
| CO2 | Understand deadlock, prevention, and avoidance algorithms. | PO7, PO10 | K 2 |
| CO3 | Compare and contrast various memory management schemes. | PSO2, PO4 | K 4 |
| CO4 | Perform administrative tasks on Linux Servers. | PSO1 | K 3 |
| CO5 | Compare iOS and Android Operating Systems | PO1, PO2 | K 4 |
| CO6 | Understand the functionality of file systems. | PO9, PSO3 | K 2 |

**Course Outcomes: DSC-1C PRACTICAL-VII: COMPUTER ORIENTED STATISTICAL METHODS LAB**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| CO1 | Formulate and solve linear programming problems and operations with nonlinear expressions | PO2, PO7 | K6 |
| CO2 | Able to find the mean and the variance of arandom variable. | PO2, PO7 | |
| CO3 | Able to find the confidence interval for the mean of a normal population from a sample. Able to find thesample regression line. | PO2, PO7, PSO3 | |

**Course Outcomes: DSC-2C PRACTICAL-VIII:DATA STRUCTURE & FILE PROCESSING LAB**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| CO1 | Understand basic data structures such as arrays,strings, and linked lists programs in C language | PO1, PO2, PO7,PSO1 | K2 |
| CO2 | To implement linear data structures such as stacksand queues and understand their difference. | PO1 | K3 |
| CO3 | Program to implement the concepts tree, heap, andgraphs along with their basic operations in C language | PO1 | K3 |
| CO4 | Understand the concept of memory management. | PO1 | K2 |
| CO5 | To implement C programs using sorting andsearching | PO1 | K3 |

**Course Outcomes: DSC-3C PRACTICAL-IX: OPERATING SYSTEM LAB**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| CO1 | Will be able to control access to a computer andthe files that may be shared. | PO1, PO2 | K1 |
| CO2 | Demonstrate the knowledge of the components of computer and their respective roles in computing | PO1, PO2 | K2 |
| CO3 | Ability to recognize and resolve user problems withstandard operating environments | PO1, PO2 | K2 |
| CO4 | Gain practical knowledge of how programming languages, operating systems, and architecturesinteract and how to use each effectively | PO1, PO2 | K3 |

**Course Outcomes: DSC-1D FINANCIAL ACCOUNTING & MANAGEMENT**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| CO1 | Demonstrate the roles and importance of financefunction. | PO6, PO8, PSO3 | K3 |
| CO2 | Describe the theories of capital structures. | PO6 | K2 |
| CO3 | Determine the factor influencing working capitaland its importance | PO6 | |
| CO4 | Articulate the basic concept related to cost ofcapital. | PO6 | |
| CO5 | Emphasize on management of funds and itsallocation. | PO6 | |

**Course Outcomes: DSC-2D JAVA PROGRAMMING**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| CO1 | Understand the concepts related to JavaTechnology. | PO2, PSO3 | K2 |
| CO2 | Analyze and understand use of Java ServerProgramming | PO6, PSO4 | K4 |
| CO3 | Create dynamic web pages, using Servlets andJSP Make a reusable software component, using Java Bean | PO7, PO3 | K6 |
| CO4 | Examine skills to develop real time applications | PSO1 | K4 |
| CO5 | Construct database through Java programs,using Java Database Connectivity (JDBC) | PO4, PSO5 | K6 |
| CO6 | Develop advanced skills for programming inJava | PO3 | K6 |

**Course Outcomes: DSC-3D Software Engineering**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| **CO1** | Identify, formulate, and solve complex engineering problems by applying principles ofengineering, science, and mathematics | **P01, PSO3** | **K2** |
| **CO2** | Apply engineering design to produce solutionsthat meet specified needs with consideration of public health, safety, and welfare, as well asglobal, cultural, social, environmental, and economic factors | **PO3** | **K3** |
| **CO3** | Recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions inglobal, economic, environmental, and societal contexts | **PO2, PSO4** | **K2** |
| **CO4** | Develop and conduct appropriate experimentation, analyze, and interpret data, and use engineering judgment to draw conclusions | **PO9, PO10** | **K6** |
| **CO5** | Apply new knowledge as needed, usingappropriate learning strategies | **PO1, PSO2** | **K3** |

**Course Outcomes: DSC-1D PRACTICAL-X: ACCOUNTING LAB**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| CO1 | To implement calculate number of installment andamount with interest through hire purchase & installment system. | PO2, PO6, PSO3 | K3 |
| CO2 | Solve the trial balance by preparation of finalaccounts of co-operative society | PO7, PO8 | K3 |
| CO3 | Design final accounts, hire purchase accounts &Joint Venture | PO2, PO7 | K6 |

**Course Outcomes: DSC-2D PRACTICAL-XI:JAVA PROGRAMMING LAB**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| CO1 | To implement basic Java applications and use arrays | PO1 | K3 |
| CO2 | Create classes, objects and apply Inheritance | PO1 | K6 |
| CO3 | Create Packages and build applications using default packages | PSO1, PSO5 | K6 |
| CO4 | Manage Exceptions and develop multithreaded applications | PSO2 | K6 |
| CO5 | Create GUI applications which are event based and write network programs | PSO2 | K6 |

**Course Outcomes: DSC-3D PRACTICAL-XII: SOFTWARE ENGINEERING LAB**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| CO1 | Understand the software engineering methodologies involved in the phases for project development | PO5 | K2 |

| | | | |
|---|---|---|---|
| **CO2** | Knowledge about open- source tools used for implementing software engineering methods. | **PO7, PO8** | **K3** |
| **CO3** | Ability to develop product-startups implementing software process models in software engineering methods | **PSO1, PSO5** | **K3** |
| **CO4** | Understanding Open-source Tools: StarUML / UMLGraph / Topcased | **PO7** | **K2** |

**Course Outcomes: DSE-1 (A) PYTHON PROGRAMMING**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| **CO1** | Apply a new computational problem and develop a plan to solve it through problem understanding and decomposition. | **PO2, PSO4** | **K3** |
| **CO2** | Design creation process that includes specifications, algorithms, and testing. | **PO4, PO7** | **K6** |
| **CO3** | Develop Code, test, and debug a program in Python, based on your design. Important computer science concepts such as problem solving (computational thinking), problem decomposition, algorithms, abstraction, and software quality are emphasized throughout. | **PO6, PSO5** | **K6** |
| **CO4** | Apply application development and prototyping using Python. | **PO6, PSO2** | **K3** |
| **CO5** | Apply fundamental problem-solving techniques. | **PO4** | |

**Course Outcomes: DSE-2(c) Data Mining**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| **CO1** | Ability to perform the preprocessing of data and apply mining techniques on it. | **PO7** | **K3** |

| | | | |
|---|---|---|---|
| **CO2** | Ability to identify the association rules, classification, and clusters in data sets clusters in large data sets. | **PO1** | **K2** |
| **CO3** | Ability to solve real world problems in business and scientific information using data mining | **PSO2** | **K3** |
| **CO4** | Ability to classify web pages, extracting knowledge from the web. | **PSO2** | **K2** |
| **CO5** | Analyze strengths and limitations of various data mining models. | **PSO4** | **K4** |

**Course Outcomes: DSE-3(a) DATA COMMUNICATION & NETWORKS**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| **CO1** | Understand the basics of data communication,networking, internet, and their importance. | **PO4, PSO2** | **K2** |
| **CO2** | Analyze the services and features of variousprotocol layers in data networks. | **PO2, PSO3** | **K4** |
| **CO3** | Differentiate wired and wireless computernetworks | **PO5** | **K4** |
| **CO4** | Analyze TCP/IP and their protocols | **PO2, PSO5** | **K4** |
| **CO5** | Recognize the different internet devices andtheir functions. | **PO6, PSO1** | **K2** |
| **CO6** | Identify the basic security threats of a network. | **PO2** | **K2** |

**Course Outcomes: SEC-1 (b) SOFTWARE TESTING**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|

| | | | |
|---|---|---|---|
| **CO1** | To use fundamental concepts in softwaretesting | **PO3, PSO1** | **K3** |
| **CO2** | To discuss various software testing issuesand solutions in software unit test, integration, and system testing. | **PO2, PSO5** | **K2** |
| **CO3** | To use the advanced software testing topics,such as object-oriented software testing methods. | **PSO1, PSO4** | **K3** |
| **CO4** | Apply a wide variety of testing techniquesin an effective and efficient manner. | **PSO1, PSO4** | **K3** |
| **CO5** | Evaluate the limitations of a given testing process and provide a succinct summary ofthose limitations | **PO5** | **K5** |

**Course Outcomes: DSE-1 PRACTICAL-XIII (a) PYTHON PROGRAMMING LAB**

| Sl No. | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| **CO1** | Design, Test and Debug Python Programs | **PO1, PO2** | **K6** |
| **CO2** | Implement Conditionals and Loops forPython Programs | **PSO2** | **K3** |
| **CO3** | Use functions and represent Compound datausing Lists, Tuples and Dictionaries | **PO1, PSO2** | **K3** |
| **CO4** | Read and write data from & to files in Pythonand develop Application using Pygame | **PO2** | **K6** |

**Course Outcomes: DSE-2 PRACTICAL-XIV (c) Data Mining LAB**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| CO1 | Implement to add mining algorithms as acomponent to the existing tools | PO7 | K3 |
| CO2 | Demonstrate the classification, clusteringetc. in large data sets. | PO1 | K3 |
| CO3 | Ability to apply mining techniques forrealistic data. | PSO2 | K3 |

**Course Outcomes: DSE-3 PRACTICAL-XV (a) DATA COMMUNICATION & NETWORKS LAB**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| CO1 | Understand the functionalities of variouslayers of OSI model & operating Systemfunctionalities | PO4 | K2 |
| CO2 | Ability to understand the encryption and decryption concepts in Linux environment | PO7 | K2 |
| CO3 | Ability to apply appropriate algorithm for thefinding of shortest route. | PSO2 | K3 |
| CO4 | Apply to configure the routing table | PO4, PSO2 | K3 |

**Course Outcomes: SEC-3(b) PHP PROGRAMMING**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| CO1 | Understanding the basic concepts of PHP programming | PO1 | K2 |

| | | | |
|---|---|---|---|
| **CO2** | Analyze PHP scripts and determine their behavior. | **PO7** | **K4** |
| **CO3** | Construct PHP scripts to create dynamic web content. | **PSO2** | **K6** |
| **CO4** | Differentiate between GET and POST requests | **PSO2** | **K4** |

**Course Outcomes: SEC-3 (b) ANROID PROGRAMMING**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| **CO1** | Understand Android OS, Gradle, AndroidStudio. | **PO1, PO2** | **K2** |
| **CO2** | Develop Android Application | **PO1, PO2** | **K6** |
| **CO3** | Develop UI based Mobile Application usingAndroid Studio. | **PO8** | **K6** |
| **CO4** | Design application for Mobile using varioussensors. | **PO8** | **K6** |
| **CO5** | To implement to learn new mobile technologies. | **PO7** | **K3** |

**Course Outcomes: DSE-4 (c) OPEN-SOURCE SOFTWARE**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| **CO1** | Implement various applications using buildsystems | **PO1, PO2** | **K3** |
| **CO2** | Understand the installation of various packages in open-source operating systems | **PO1, PO2** | **K2** |
| **CO3** | Create simple GUI applications using Gambas3 | **PO8** | **K6** |
| **CO4** | Understand various version control systems | **PO8** | **K2** |

| | | | |
|---|---|---|---|
| **CO5** | Understand the kernel configuration and virtual environment | **PO7** | **K2** |

**Course Outcomes: DSE-5(a) DIGITAL IMAGE PROCESSING**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| **CO1** | Understand application of digital image processing. | **PO1, PSO5** | **K2** |
| **CO2** | Describe digital image representation, manipulation and illustrate the use of histograms. | **PO9, PO10** | **K2** |
| **CO3** | Applying various Geometric transformations onimage and Illustrate Two- dimensional Fourier transform. | **PO7, PSO2** | **K3** |
| **CO4** | Understand image transformation techniquesviz. Fourier transform, Walsh Hadamard, DCT, and Hotelling transform. | **PO6, PSO5** | **K2** |
| **CO5** | Understand image enhancement techniques - histogram processing and various image filters viz. Laplacian filter, smoothing and sharpening filters, spatial filters, and homomorphic filters. | **P03, P06** | **K2** |
| **CO6** | Applying various Ideal filters in the frequency domain and understand the concept of edgedetection. | **PO3** | **K3** |
| **CO7** | Understand concept of segmentation in images. | **PSO2, PSO4** | **K2** |

**Course Outcomes: DSE-4 PRACTICAL-XV I(c) OPEN-SOURCE SOFTWARE LAB**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| **CO1** | Understand, analyze, and apply the role of languages like HTML, DHTML, CSS, JavaScript, and | **PO1, PO2** | **K2** |

| | | | |
|---|---|---|---|
| | PHP | | |
| **CO2** | Analyze a web page and identify its elements and attributes | **PO1, PO2** | **K4** |
| **CO3** | Create web pages using HTML, DHTML and Cascading Style Sheets | **PO8** | **K6** |
| **CO4** | Create dynamic web pages using JavaScript, XML | **PO8** | **K6** |
| **CO5** | Design web applications using PHP | **PO7** | **K6** |

**Course Outcomes: DSE-5 PRACTICAL-XVII (a) DIGITAL IMAGE PROCESSING LAB**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| **CO1** | Describe digital image representation, manipulation and illustrate the use of histograms. | **PO1, PSO5** | **K2** |
| **CO2** | Applying various Geometric transformations on image and illustrate Two- dimensional Fourier transform | **PO9, PO10** | **K3** |
| **CO3** | Use and compare, various Linear filtering methods. | **PO7, PSO2** | **K3** |
| **CO4** | Applying various Ideal filters in the frequency domain and understand the concept of edge detection | **PO6, PSO5** | **K3** |
| **CO5** | Use and Compose various Morphological operations on binary images and generate their transformed images | **P03, P06** | **K3** |

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**Course Outcomes: DSE-6 PRACTICAL-XVIII MAJOR PROJECT**

| Sl.No | Outcome Statement | PO/PSO | Cognitive Level |
|---|---|---|---|
| **CO1** | Develop an innovative software application that addresses a specific real-world problem in the field of computer science. | **PO2, PSO2** | **K6** |
| **CO2** | Implement a scalable and efficient algorithm to optimize data processing and analysis for large datasets. | **PO2, PO6** | **K6** |
| **CO3** | Create a user-friendly and interactive interface for the computer science project, enhancing user experience and engagement. | **PO3, PSO4** | **K6** |
| **CO4** | Conduct rigorous testing and debugging to ensure the reliability and accuracy of the computer program. | **PO4, PSO3** | **K6** |
| **CO5** | Demonstrate proficient coding skills and apply best practices in software development throughout the major project. | **PSO2** | **K6** |
| **CO6** | Collaborate effectively within a team, showcasing strong communication and teamwork abilities. | **PO1, PO9** | **K2** |
| **CO7** | Employ advanced machine learning techniques to develop a predictive model for a given dataset. | **PO2, PSO2** | **K6** |