

**Course Outcomes: DSC-3A Object Oriented Programming using C++**

<b>Sl.No</b>	<b>Outcome Statement</b>	<b>PO/PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Create simple programs using classes and objects in C++.	<b>PO3, PO7 PSO1</b>	<b>K6</b>
<b>CO2</b>	Implement Object Oriented Programming Concepts in C++.	<b>PO2, PO7 PSO3</b>	<b>K3</b>
<b>CO3</b>	Develop applications using stream I/O and file I/O.	<b>PO6, PO7, PSO2</b>	<b>K6</b>
<b>CO4</b>	Implement Object Oriented Programs using templates and exceptional Handling concepts.	<b>PO3, PO7, PSO3</b>	<b>K3</b>
<b>CO5</b>	Identify importance of object-oriented programming and difference between structured oriented and object-oriented programming features.	<b>PO2, PO7, PSO2</b>	<b>K2</b>

**Course Outcomes: DSC-3A Practical -1: Object Oriented Programming using C++ Lab**

<b>Sl.No</b>	<b>Outcome Statement</b>	<b>PO/PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Create simple programs using classes and objects in C++.	<b>PO3, PO7, PSO1</b>	<b>K6</b>
<b>CO2</b>	Implement Object Oriented Programming Concepts in C++.	<b>PO2, PO7, PSO3</b>	<b>K3</b>
<b>CO3</b>	Develop applications using stream I/O and file I/O.	<b>PO6, PO7, PO10, PSO2</b>	<b>K6</b>
<b>CO4</b>	Implement Object Oriented Programs using templates and exceptional Handling concepts.	<b>PO3, PO7, PSO3</b>	<b>K3</b>

**Course Outcomes: DSC-3B Data Structures and File Processing**

<b>Sl.No</b>	<b>Outcome Statement</b>	<b>PO/PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand basic and data structures dealing with algorithm development using C++.	<b>PO2, PO7, PSO2</b>	<b>K2</b>
<b>CO2</b>	Apply search and sort techniques concord with real-time computational problems.	<b>PO2, PO7, PSO2</b>	<b>K3</b>
<b>CO3</b>	Analyze data structures dealing with algorithm development viz. stacks, queues, lists, trees, and graphs.	<b>PO2, PO7, PSO4</b>	<b>K4</b>
<b>CO4</b>	Construct algorithmic approaches in real time computational environment.	<b>PO2, PO7, PSO1, PSO4</b>	<b>K6</b>
<b>CO5</b>	Analyze non-linear data structure tree.	<b>PO10, PO7, PSO3</b>	<b>K4</b>
<b>CO6</b>	Understand representation, operations, and traversal mechanisms to implement the Concept of a graph.	<b>PO3, PO7, PSO4</b>	<b>K2</b>

**Course Outcomes: DSC-3B Practical –II Data Structures and File Processing Lab**

<b>Sl.No</b>	<b>Outcome Statement</b>	<b>PO/PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand a systematic approach to organizing, writing, and debugging using C++.	<b>PO2, PO7, PSO1</b>	<b>K2</b>
<b>CO2</b>	Apply search and sort techniques concord with real-time computational problems.	<b>PO2, PO7, PSO1</b>	<b>K3</b>
<b>CO3</b>	Analyze data structures dealing with algorithm development viz. stacks, queues, lists, trees, and graphs.	<b>PO2, PO7, PSO4</b>	<b>K4</b>
<b>CO4</b>	Construct algorithmic approaches in real time computational environment.	<b>PO2, PO7, PSO2</b>	<b>K6</b>
<b>CO5</b>	Analyze non-linear data structure tree.	<b>PO4, PO7, PSO3</b>	<b>K4</b>
<b>CO6</b>	Understand representation, operations and traversal mechanisms to implement the Concept of a graph.	<b>PO3, PO7, PSO4</b>	<b>K2</b>

**Course Outcomes: DSC-3C Numerical Computing**

<b>Sl.No</b>	<b>Outcome Statement</b>	<b>PO/PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand basic knowledge in solving interpolation with equal interval problems by various numerical methods. Estimate the missing terms through interpolation methods.	<b>PO2, PO7, PSO3</b>	<b>K2</b>
<b>CO2</b>	Apply appropriate numerical methods to solve the problem with most accuracy.	<b>PO2, PO7, PSO1, PSO4</b>	<b>K3</b>
<b>CO3</b>	Compare different methods in numerical analysis with accuracy and efficiency of solution	<b>PO2, PO7, PSO4</b>	<b>K4</b>
<b>CO4</b>	Understand to derive Trapezoidal rule, Simpson's 1/3 – rule, Simpson's 3/8 – rule, and Weddle's rules from General Quadrature formula and find the Euler – Maclaurin Formula of summation and The Euler transformation.	<b>PO3, PO7, PSO4</b>	<b>K2</b>

**Course Outcomes: DSC-3C Practical –III Numerical Computing Lab**

<b>Sl.No</b>	<b>Outcome Statement</b>	<b>PO/PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand basic knowledge in solving interpolation with equal interval problems by various numerical methods. Estimate the missing terms through interpolation methods.	<b>PO7, PO10, PSO2</b>	<b>K2</b>
<b>CO2</b>	Apply appropriate numerical methods to solve the problem with most accuracy.	<b>PO2, PO7, PSO1, PSO2</b>	<b>K3</b>
<b>CO3</b>	Compare different methods in numerical analysis with accuracy and efficiency of solution	<b>PO2, PO7, PSO4</b>	<b>K4</b>
<b>CO4</b>	Understand to derive Trapezoidal rule, Simpson's 1/3 – rule, Simpson's 3/8 – rule, and Weddle's rules from General Quadrature formula and find the Euler – Maclaurin Formula of summation and The Euler transformation.	<b>PO3, PO7, PSO4</b>	<b>K2</b>

**Course Outcomes: DSC-3D Design and Analysis of Algorithm**

<b>Sl No.</b>	<b>Outcome Statement</b>	<b>PO/PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Able to Argue the correctness of algorithms using inductive proofs and analyze worst-caserunning times of algorithms using asymptotic analysis	<b>PO3, PO7, PSO4</b>	<b>Analyze</b>
<b>CO2</b>	Able to explain important algorithmic design paradigms (divide-and-conquer, greedy method, dynamic-programming, and Backtracking) and apply when algorithmic design situation calls for it.	<b>PO6, PO7, PSO1, PSO4</b>	<b>Create</b>
<b>CO3</b>	Able to Compare between different datastructures and pick an appropriate data structure for a design situation.	<b>PO4, PO7, PSO3</b>	<b>Analyze</b>

**Course Outcomes: DSC-3D Practical-IV: Design and Analysis of Algorithm Lab**

<b>Sl.No</b>	<b>Outcome Statement</b>	<b>PO/PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Create the programs in CPP to solve problems using algorithm design techniques	<b>PO3, PO7, PSO1, PSO2</b>	<b>K6</b>
<b>CO2</b>	Ability to write programs in CPP to solve problems using divide and conquer strategy	<b>PO2, PO7, PSO1, PSO2</b>	<b>K3</b>
<b>CO3</b>	Ability to write programs in CPP to solve problems using backtracking strategy	<b>PO2, PO7, PSO1, PSO4</b>	<b>K3</b>

**Course Outcomes: DSC-3a Java Programming**

<b>Sl. No.</b>	<b>Outcome Statement</b>	<b>PO/PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understand the concepts related to Java Technology.	<b>PO7, PO10, PSO3</b>	<b>K2</b>
<b>CO2</b>	Use an integrated development environment to write, compile, run, and test simple object-oriented Java programs.	<b>PO7, PO2, PSO1, PSO2</b>	<b>K3</b>
<b>CO3</b>	Develop advanced skills for programming in Java	<b>PO7, PO3, PSO1</b>	<b>K6</b>
<b>CO4</b>	Examine skills to develop real time applications	<b>PO7, PO3, PSO1, PSO4</b>	<b>K4</b>

**Course Outcomes: DSC-3 Practical-V(a) Java Programming Lab**

<b>Sl.No</b>	<b>Outcome Statement</b>	<b>PO/PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Able to implement programs for solving real world problems using java collection framework.	<b>PO2, PO7, PSO1, PSO2</b>	<b>K3</b>
<b>CO2</b>	Able to execute programs using abstract classes.	<b>PO7, PO2, PSO2</b>	<b>K3</b>
<b>CO3</b>	Able to Develop multithreaded programs.	<b>PO7, PO2, PSO1, PSO4</b>	<b>K6</b>
<b>CO4</b>	Able to Design GUI programs using swing controls in Java	<b>PO7, PO2, PSO1</b>	<b>K6</b>

**Course Outcomes: SEC-1(b) PHP Programming**

<b>Sl.No</b>	<b>Outcome Statement</b>	<b>PO/PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Understanding basic concepts PHP Programming	<b>PO3, PO7, PSO2</b>	<b>K2</b>
<b>CO2</b>	Analyze PHP scripts and determine their behavior.	<b>PO2, PO7, PSO2</b>	<b>K4</b>
<b>CO3</b>	Construct PHP scripts to create dynamic web content.	<b>PO2, PO7, PSO1, PSO4</b>	<b>K6</b>

<b>CO4</b>	Differentiate between GET and Post requests	<b>PO2, PO7, PS03</b>	<b>K6</b>
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**Course Outcomes: DSC-6(a) Python Programming**

<b>Sl.No</b>	<b>Outcome Statement</b>	<b>PO/PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Apply a new computational problem and develop a plan to solve it through problem understanding and decomposition.	<b>PO2, PO7, PS04</b>	<b>K3</b>
<b>CO2</b>	Design creation process that includes specifications, algorithms, and testing.	<b>PO4, PO7, PS01</b>	<b>K6</b>
<b>CO3</b>	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 is emphasized throughout.	<b>PO6, PS01</b>	<b>K6</b>
<b>CO4</b>	Apply application development and prototyping using Python.	<b>PO6, PS02</b>	<b>K3</b>
<b>CO5</b>	Apply fundamental problem-solving techniques.	<b>PO4, PS02</b>	<b>K3</b>

**Course Outcomes: DSC-6 Practical-VI: (a) Python Programming Lab**

<b>Sl. No.</b>	<b>Outcome Statement</b>	<b>PO/PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Design, Test and Debug Python Programs	<b>PO3, PO7, PS01, PS02</b>	<b>K6</b>
<b>CO2</b>	Implement Conditionals and Loops for Python Programs	<b>PO2, PS01, PS02</b>	<b>K3</b>
<b>CO3</b>	Implement functions concept and represent Compound data using Lists, Tuples and Dictionaries	<b>PO2, PS01, PS04</b>	<b>K3</b>
<b>CO4</b>	Designing GUI interfaces and writing event handling code	<b>PO2, PO7, PS01, PS02</b>	<b>K6</b>

**Course Outcomes: SEC-4 (a) MySQL (SQL/PLSQL)**

<b>Sl.No</b>	<b>Outcome Statement</b>	<b>PO/PSO</b>	<b>Cognitive Level</b>
<b>CO1</b>	Describe the features and benefits of MySQL.	<b>PO4, PO7, PSO2</b>	<b>K2</b>
<b>CO2</b>	Explain the basics of relational databases.	<b>PO2, PSO2</b>	<b>K2</b>
<b>CO3</b>	Design an effective database.	<b>PO2, PO7, PSO4</b>	<b>K6</b>
<b>CO4</b>	Construct MySQL statements from the MySQL command-line client.	<b>PO2, PO3, PSO1,</b>	<b>K6</b>
<b>CO5</b>	Select appropriate data types for your database.	<b>PO2, PO7, PSO3</b>	<b>K2</b>