Course Outcomes Computer Science

I YEAR / I SEMESTER

Paper- 1: Computer Fundamentals & Photoshop

CO1. To explore basic knowledge on computers and Photoshop's beauty from the practical to the painterly artistic

CO2. To understand how Photoshop will help you create your own successful images

I YEAR / II SEMESTER

Paper-2: Programming in C

CO1. Appreciate and understand the working of a digital computer

CO2. Analyze a given problem and develop an algorithm to solve the problem

CO3. Improve upon a solution to a problem

CO4. Use the 'C' language constructs in the right way

CO5. Design, develop and test programs written in 'C'

II YEAR / III SEMESTER

Paper-3: Object oriented programming using JAVA

CO1. Understand the concept and underlying principles of Object-Oriented Programming

CO2. Understand how object-oriented concepts are incorporated into the Java programming language

CO3. Develop problem-solving and programming skills using OOP concept

CO4. Understand the benefits of a well structured program

CO5. Develop the ability to solve real-world problems through software development in high-level programming language like Java

CO6. Develop efficient Java applets and applications using OOP concept

CO7. Become familiar with the fundamentals and acquire programming skills in the Java language.

II YEAR / IV SEMESTER

Paper-4: DATA STRUCTURES

CO1. Describe how arrays, records, linked structures, stacks, queues, trees, and graphs are represented in memory and used by algorithms

CO2. Describe common applications for arrays, records, linked structures, stacks, queues, trees, and graphs.

CO3. Write programs that use arrays, records, linked structures, stacks, queues, trees, and graphs

CO4. Demonstrate different methods for traversing trees

CO5. Compare alternative implementations of data structures with respect to performance

CO6. Compare and contrast the benefits of dynamic and static data structures implementations

CO7. Describe the concept of recursion, give examples of its use, describe how it can be implemented using a stack.

CO8. Discuss the computational efficiency of the principal algorithms for sorting, searching, and hashing.

III YEAR / V SEMESTER

Paper-5: Data Base Management System

CO1. Design and model of data in database.

CO2. Store, Retrieve data in database.

III YEAR / V SEMESTER

Paper 6: Software Engineering

CO1. Ability to gather and specify requirements of the software projects.

CO2. Ability to analyze software requirements with existing tools

CO3. Able to differentiate different testing methodologies

CO4. Able to understand and apply the basic project management practices in real life projects

CO5. Ability to work in a team as well as independently on software projects

III YEAR / VI SEMESTER:

Paper-7: Elective-A: Operating Systems

CO1. Analyze the concepts of processes in operating system and illustration of the scheduling of processor for a given problem instance.

CO2. Identify the dead lock situation and provide appropriate solution so that protection and security of the operating system is also maintained.

CO3. Analyze memory management techniques, concepts of virtual memory and disk scheduling.

CO4. Understand the implementation of file systems and directories along with the interfacing of IO devices with the operating system.

III YEAR / VI SEMESTER

Paper-7: Elective-B: COMPUTER NETWORKS

CO1. Identify the different components in a Communication System and their respective roles.

CO2. Describe the technical issues related to the local Area Networks

CO3. Identify the common technologies available in establishing LAN infrastructure.

III YEAR / VI SEMESTER

Paper-7: Elective-C: Web Technologies

CO1. To understand the web architecture and web services.

CO2. To practice latest web technologies and tools by conducting experiments.

CO3. To design interactive web pages using HTML and Style sheets.

CO4. To study the framework and building blocks of .NET Integrated Development Environment.

CO5. To provide solutions by identifying and formulating IT related problems.

III YEAR / VI SEMESTER

(Cluster 1) Paper-8: Elective –A-1 Foundations of Data Science

CO1. Able to apply fundamental algorithmic ideas to process data.

CO2. Learn to apply hypotheses and data into actionable predictions.

CO3. Document and transfer the results and effectively communicate the findings using visualization techniques.

III YEAR / VI SEMESTER

(Cluster 1) Paper-8: Elective –A-2 BIG DATA TECHNOLOGY

CO1. Learn tips and tricks for Big Data use cases and solutions.

CO2. Learn to build and maintain reliable, scalable, distributed systems with Apache Hadoop.

CO3. Able to apply Hadoop ecosystem components.

III YEAR / VI SEMESTER

(Cluster 1 Paper-8: Elective –A-3: COMPUTING FOR DATA ANALYTICS

CO1. Learn the Big Data in Technology Perspective.

CO2. Understanding of the statistical procedures most often used by practicing engineers

CO3. Understand Forecasting methods and apply for business applications.

III YEAR / VI SEMESTER

(Cluster 2) Paper-8: Elective –B-1 Distributed Systems

- CO1. Create models for distributed systems.
- **CO2.** Apply different techniques learned in the distributed system.

III YEAR / VI SEMESTER

(Cluster 2) Paper-8: Elective –B-2 Cloud Computing

CO1. Compare the strengths and limitations of cloud computing

CO2. Identify the architecture, infrastructure and delivery models of cloud computing

- **CO3.** Apply suitable virtualization concept.
- CO4. Choose the appropriate cloud player, Programming Models and approach.
- CO5. Address the core issues of cloud computing such as security, privacy and interoperability
- CO6. Design Cloud Services and Set a private cloud

III YEAR / VI SEMESTER

(Cluster 2) Paper-8: Elective –B-3 Grid Computing

- CO1. Compare the strengths and limitations of Grid computing
- CO2. Identify the architecture, infrastructure and delivery models of Grid computing
- CO3. Apply suitable virtualization concept.
- CO4. Address the core issues of Grid computing such as security, privacy and interoperability