### DEPART MENT OF COMPU

## TER SCIENCECOURSE OUTCOMES COMPUTER FUNDAMENTALS AND PHOTOSHOP

**CO1:** Explain the basic knowledge of computer hardware and software.(K3)

CO2: Practice and work on Adobe Photoshop Applications. (K3)

CO3: Create and edit photo albums. (K6)

CO4: Design and edit Banners and visiting cards etc. (K6)

#### PROBLEM SOLVING IN 'C'

#### **Course Outcomes**

**CO1:** Demonstrate the working of a digital computer. (K3)

CO2: Analyse a given problem and develop an algorithm to solve the problem. (K4)

**CO3:** Apply the 'C' language constructs in the right way. (K3)

CO4: Design, develop and test programs written in 'C'. (K6)

#### PROBLEM SOLVING IN 'C' PRACTICAL

#### **Course Outcomes**

**CO1:** Develop problem solving, logic development techniques. (K3)

**CO2:** Construct flowcharts/ develop algorithms for the given problems.(K3)

CO3: Develop programs in 'C' language. (K6)

**CO4:** Correlate the program with possible solutions. (K4)

CO5: Test the program manually with some test data. (K4)

**CO6:** Evaluate the program by executing it. (K5)

#### OBJECT ORIENTED PROGRAMMING USING JAVA

#### **Course Outcomes**

**CO1:** Explain the concept and underlying principles of Object-Oriented Programming. (K3)

**CO2:** Demonstrate how Object-Oriented concepts are incorporated into the Java programming language. (K3)

CO3: Develop problem-solving and programming skills using OOP concept. (K3)

**CO4:** Develop programming skills in the Java language. (K3)

#### OBJECT ORIENTED PROGRAMMING USING JAVA LAB

#### **Course Outcomes:**

**CO1:** Develop problem solving, logic development techniques. (K3)

CO2: Construct flowcharts/develop algorithms for the given problems. (K3)

**CO3:** Develop programs in Java. (K6)

**CO4:** Correlate the program with possible solutions.(K4)

**CO5:** Test the program manually with some test data. (K4)

**CO6:** Evaluate the program by executing it. (K5)

#### **DATA STRUCTURES**

#### **Course Outcomes**

**CO1:** Explain how arrays, records, linked structures, stacks, queues, trees, and graphs are represented in memory and its applications. (K3)

CO2: Develop programs that use arrays, records, linked structures, stacks, queues, trees, and graphs.(K3)

CO3: Compare and contrast the benefits of dynamic and static data structures implementations.(K4)

**CO4:** Describe the concept of recursion, give examples of its use, describe how it can be implemented using a stack. (K2)

**CO5:** Discuss the computational efficiency of the principal algorithms for sorting, searching and hashing. (K2)

#### DATA STRUCTRURES USING 'C' LAB

#### **Course Outcomes:**

**CO1:** Develop problem solving, logic development techniques. (K3)

CO2: Construct flowcharts/Develop algorithms for the given problems. (K3)

CO3: Develop programs using Data structures in 'C'. (K6)

**CO4:** Correlate the program with possible solutions. (K4)

**CO5:** Test the program manually with some test data. (K4)

**CO6:** Evaluate the program by executing it. (K5)

#### DATA STRUCTURES USING JAVA LAB

#### **Course Outcomes:**

**CO1:** Develop problem solving, logic development techniques. (K3)

CO2: Develop programs in Data Structures using Java. (K6)

**CO3:** Correlate the program with possible solutions. (K4)

**CO4:** Test the program manually with some test data. (K4)

**CO5:** Evaluate the program by executing it. (K5)

#### DATABASE MANAGEMENT SYSTEMS

#### **Course Outcomes**

**CO1:** Determine database structure and its design. (K3)

CO2: Explain different data models used for database design. (K3)

**CO3:** Correlate database transactions and data recovery. (K4)

**CO4:** Employ DML, DDL, DCL commands to manipulate data in the database. (K3)

#### **DBMS PRACTICAL**

#### **Course Outcomes:**

**CO1:** Determine database structure and its design. (K3)

CO2: Explain different data models used for database design. (K3)

**CO3:** Correlate database transactions and data recovery. (K4)

**CO4:** Employ DML, DDL, DCL commands to manipulate data in the database. (K3)

#### SOFTWARE ENGINEERING

#### **Course Outcomes**

**CO1:** Ability to deduce and specify requirements of the software projects. (K4)

**CO2:** Analyse software requirements with existing tools. (K4)

CO3: Differentiate different testing methodologies and apply the basic project management practices in real life projects. (K4)

CO4: Adapt himself/herself to work in a team as well as independently on software projects. (K6)

#### **PRACTICAL**

#### **Course Outcomes**

**CO1:** Develop skills to work in emerging/latest technologies. (K6)

CO2: Apply theoretical and practical tools/techniques to solve life problems. (K3)

**CO3:** Plan, analyse, design and implement the project. (K4,K5, K6)

#### **WEB TECHNOLOGIES**

#### **Course Outcomes**

**CO1:** Demonstrate the web architecture and web services. (K3)

CO2: Practice latest web technologies and tools by conducting experiments. (K3)

CO3: Design interactive web pages using HTML and style sheets. (K6)

**CO4:** Determine the framework and building blocks of .NET Integrated Development Environment. (K3)

**CO5:** Prepare solutions by identifying and formulating IT related problems. (K6)

#### WEBTECHNOLOGIES LAB

#### **Course Outcomes:**

**CO1:** Create forms using HTML. (K6)

CO2: Create Files using HTML. (K6)

CO3: Create Style sheets using HTML. (K6)

**CO4:** Create tables using HTML.(K6)

CO5: Create Web pages using HTML.(K6)

#### **DISTRIBUTED SYSTEMS**

#### **Course Outcomes**

CO1: Create models for distributed systems. (K6)

**CO2:** Apply different techniques learned in the distributed system. (K4)

**CO3:** Develop the concepts of Inter-process communication. (K3)

**CO4:** Develop the concepts of Distributed Mutual Exclusion and Distributed Deadlock Detection algorithm. (K3)

#### **CLOUD COMPUTING**

#### **Course Outcomes**

**CO1:** Compare the strengths and limitations of cloud computing. (K4)

CO2: Illustrate the architecture, infrastructure and delivery models of cloud computing. (K4)

**CO3:** Apply suitable virtualization concept. (K5)

**CO4:** Devise the appropriate cloud player, Programming Models and approach. (K4)

**CO5:** Correlate the core issues of cloud computing such as security, privacy and interoperability.(K4)

CO6: Design Cloud Services and Set a private cloud. (K6)

#### **PROJECT SEM-VI**

#### **Course Outcomes:**

**CO1:** Develop programming language concepts, particularly Java and Object-oriented concepts. (K3)

CO2: Plan, analyze, design and implement a software project or gather knowledge over the field of research and design or plan about the proposed work. (K4,K6)

**CO3:** Demonstrate the ability to locate and use technical information from multiple sources.(K3)

CO4: Demonstrate the ability to communicate effectively in speech and writing. (K3)

CO5: Organise to work as a team and focus on getting a working project done on time with each student being held accountable for their part of the project. (K4)

**CO6:** Demonstrate software development cycle with emphasis on different processes – requirements, design and implementation phases. (K3,K4,K5,K6)

## COMPUTER FUNDAMENTALS AND OFFICE TOOLS (II Semester - common to all)

#### **Course Outcomes**

**CO1:** After the successful completion of course the student would have thorough knowledge about concept and principles of computer fundamentals. Student would be in a position to work with MS Office Word, MS Excel and Power Point presentations.

# INTERNET FUNDAMENTALS AND WEB TOOLS(III SEMESTER – COMMON TO ALL)

#### **Course Outcomes**

CO1: After the successful completion of course the student should have thorough knowledge about concept and principles of internet fundamentals and Web Tools and Web Applications.