DEPARTMENT OF COMPUTER SCIENCE

B.Sc Computer Science

PROGRAM OUTCOMES & PROGRAM SPECIFIC OUTCOMES (PO & PSO)

PROGRAM OUTCOMES (PO)

After the completion of the course the students were able to:

PO1: Analyze the problem thoroughly in such a way that leads to unambiguous algorithm for the given problem.

PO2: Apply the basic principles of hardware logic, operating system and programming language in the field of computation.

PO3: Solve the problems effectively, which includes a systematic approach that can break down the complex problems into individual manageable components.

PO4: Design the necessary components that are specific for the application by integrating the appropriate business logics with it.

PO5: Develop the conceptualisation skill that is suitable for the computer science research & development initiatives.

PO6: Demonstrate the domain realization to the technical experts in any professional forum.

PROGRAM SPECIFIC OUTCOMES (PSO)

After the completion of the course the students were specifically able to:

PSO1: Identify right data structure, algorithm that is suitable for the real world problems.

PSO2: Explain the domain related topics and pursue professional growth in the computing field.

PSO3: Develop software projects that are technically appropriate for the societal demands.

B.Sc. DEGREE COURSE IN COMPUTER SCIENCE
REVISED REGULATIONS
Choice Based Credit System
(Effective from the academic year 2015-2016)

COURSE OUTCOMES

FIRST YEAR – FIRST SEMESTER

SAE1A – PROGRAMMING IN C

COURSE OUTCOMES:
Upon the completion of the course the students were able to:

CO1: Write the pseudo code for the given program.

CO2: Design the logical structure of a programming language.

CO3: Identify the input, output functions and format specifiers in C.

CO4: Implement built-in and user defined functions in C Programming.

CO5: Proficient enough to implement the derived and the user defined datatypes.

CO6: Describe the pointer and file data structures concepts with its operations.

SAE11 – PROGRAMMING IN C LAB

COURSE OUTCOMES:
Upon the completion of the course the students were able to:

CO1: Analyse the flow of simple programs.

CO2: Apply the knowledge of function in building user defined functions.

CO3: Proficient enough to debug and test code.

CO4: Implement the concept of recursion.

CO5: Evaluate the programs to the array of elements.

CO6: Implement programs to perform pointer arithmetic and basic file operations.

SNE1D- HTML

COURSE OUTCOMES:
On concluding the course the students were able to:

CO1: Discuss the fundamentals of web technologies.

CO2: Build some sample web pages in HTML.

CO3: Develop web-based applications used in active scripting languages.

CO4: Integrate components to format the web page.

CO5: Construct the components of a web page.

CO6: Describe the steps required in making a website available on the internet.

FIRST YEAR – SECOND SEMESTER

SAE2B - DIGITAL ELECTRONICS & MICROPROCESSORS

COURSE OUTCOMES:

On successful completion of the course the students are able to:

CO1: Describe the discrete computer circuit components.

CO2: Design complex circuits with boolean equations.

CO3: Implement a hardware circuit to accomplish the encoder and decoder functionality.

CO4: Determine the 8085 instruction set's categories.

CO5: Recognize the types of interrupts, counters, and memory mapping concepts.

CO6: Show off your 8085 counter and time delay programs.

SAE22 - DIGITAL ELECTRONICS & MICROPROCESSORS LAB

COURSE OUTCOMES:
On concluding the course the students were able to:

CO1: Demonstrate the digital logic principles of boolean algebra rules and truth tables.

CO2: Implement the boolean rules in K-map.

CO3: Design the boolean function using a combinational circuit.

CO4: Execute the 8085 instruction set.

CO5: Write 8085 assembly programmes using mnemonics codes.

CO6: Evaluate the programming operations in 8085.

SNE24- HTML LAB

COURSE OUTCOMES:
After the completion of the course the students were able to:

CO1: Create web applications using web technologies.

CO2: Formulate the dynamic web page within the HTML document.

CO3: Create the web layouts, colours, fonts, and lists to format the web pages.

CO4: Validating user data through active script code.

CO5: Explain the difference between web hosting and web publishing.

CO6: Sketch the table using html tag

SECOND YEAR – THIRD SEMESTER

SAE31 - PROGRAMMING IN C++ AND DATA STRUCTURES

COURSE OUTCOMES:
Upon the completion of the course the students were able to:

CO1: Describe the object oriented paradigm.

CO2: Demonstrate the use of various control structures and looping statements.

CO3: Explain dynamic memory management techniques.

CO4: Write programs using Inheritance concepts and inline functions.

CO5: Describe the type conversion and usage of exception handling.

CO6: Develop an application using Abstract Data Types.

SAE31 – PROGRAMMING IN C++ AND DATA STRUCTURES LAB

COURSE OUTCOMES:
On concluding the course the students were able to:

CO1: Describe the programs in OOPS concepts.

CO2: Write C++ programs by choosing appropriate data structures.

CO3: Create a node or a record and inter-connect it using dynamic memory management.

CO4: Implement suitable data structures as required in C++ programs.

CO5: Design static and dynamic data structures for solving different problems.

CO6: Implement data structures like stack, queue, binary trees and graphs.

SECOND YEAR – FOURTH SEMESTER

SAE4A – JAVA PROGRAMMING

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO 1: Demonstrate Java Application programs using OOPS concepts.

CO 2: Develop various methods in the Java Program.

CO 3: Assess various access controls, packages, inheritance and interfaces.

CO 4: Discuss Thread concepts and vector classes.

CO 5: Built java programs to implement error handling techniques and I/O console.

CO 6: Create the GUI environment in a Java program.

SAE4A – JAVA PROGRAMMING LAB

COURSE OUTCOMES:

Upon the completion of the course the students were able to:

CO1: Build Java applications which follow OOP principles.

CO2: Demonstrate the concepts of polymorphism and inheritance.

CO3: Apply error handling techniques in java programs.

CO4: Implement a java program using a vector class.

CO5: Design a program using AWT class features.

CO6: Analyze the event handling mechanisms.

THIRD YEAR – FIFTH SEMESTER

SAE5A -OPERATING SYSTEMS

COURSE OUTCOMES:

Upon the completion of the course the students were able to:

CO1: Create the basic structure and the functionalities of the operating system.

CO2: Analyse the basics of process management and scheduling algorithms.

CO3: Assess the process synchronization and deadlock.

CO4: Apply memory management techniques in operating systems.

CO5: Design the virtual memory and other file management concepts.

CO6: Describe an I/O system, security and privacy issues.

SAE5B -DATABASE MANAGEMENT SYSTEMS

COURSE OUTCOMES:

Upon the completion of the course the students were able to:

CO1: Analyse the basic requirements of DBMS.

CO2: Discuss the components of DBMS.

CO3: Categorise the SQL queries.

CO4: Design the user interface forms, reports, graphical objects and error handling.

CO5: Create an application with table operation and data storage methods.

CO6: Evaluate the database administration and its types.

SAE5C- COMPUTER ARCHITECTURE AND ORGANISATION

COURSE OUTCOMES:

Upon the completion of the course the students were able to:

CO1: Identify the major functionalities of the components in computer architecture.

CO2: Analyse the different bus interconnection structures and memory hierarchy.

CO3: Assess the suitable memory type for application development.

CO4: Solve the problems using computer arithmetic, instruction set and addressing modes.

CO5: Differentiate the working principles of registers, RISC, CISC and pipelining.

CO6: Describe the basics of micro operations and its associated concepts.

SEE5A - VISUAL PROGRAMMING

COURSE OUTCOMES:

Upon the completion of the course the students were able to:

CO1: Classify VB based GUI and Event-driven programming.

CO2: Overview of VB 6.0 IDE.

CO3: Summarize programming construct: conditional, looping, procedures and functions.

CO4: Use arrays, control arrays, sorting, searching and other special controls.

CO5: Develop VB applications using MDI forms and graphics with error handling options..

CO6: Apply mouse events, file handling, COM/OLE and DLL servers.

SAE51 - RDBMS LAB

COURSE OUTCOMES:
Upon the completion of the course the students were able to:

CO1: Utilising the basic programming in developing windows applications.

CO2: Construct a database schema for a given application.

CO3: Design user interface forms with necessary controls in it.

CO4: Write queries to perform data manipulation.

CO5: Integrate the application with the database using ADODB.

CO6: Develop real time applications with primitive operations and report facilities.

THIRD YEAR – SIXTH SEMESTER

SAE6A - DATA COMMUNICATION AND NETWORKING

COURSE OUTCOMES:
Upon the completion of the course the students were able to:

CO1: Discuss the fundamental concepts of data communication networking.

CO2: Identify various protocol layer functions and features in data networks.

CO3: Differentiate connectionless and connection oriented computer networks.

CO4:Describe conflicting issues and resolution techniques in data transmission.

CO5:Interpret the different internet devices and their functions.

CO6: Contrast World Wide Web concepts related to data communication and networking.

SAE6B - WEB TECHNOLOGY

COURSE OUTCOMES:
Upon the completion of the course the students were able to:

CO1: Indicate the general concepts of HTML scripting language .

CO2: Summarize the fundamental concepts of VBScript and JavaScript.

CO3: Develop dynamic web application in JavaScript and VBScript

CO4: Discuss the basic structure of ASP.Net.

CO5: Formulate working with ASP.Net controls.

CO6: Describe security in SSL.

SEE6C - OBJECT ORIENTED ANALYSIS AND DESIGN

COURSE OUTCOMES:
After the completion of the course the students were able to:

CO1: Find solutions to the problems using an object oriented approach.

CO2: Sketch UML diagram.

CO3: Develop a software project from requirements gathered.

CO4: Describe estimation and maintenance of software systems.

CO5: Discuss the fundamentals of modelling a software project.

CO6: Interpret object-oriented approach to analyzing and designing software.

SEE6E - COMPUTER GRAPHICS

COURSE OUTCOMES:
After the completion of the course the students were able to:

CO1: Implement various algorithms to scan and convert the basic geometrical primitives.

CO2: Describe the importance of viewing and projections.

CO3: Define the fundamentals of animation, virtual reality and its technologies.

CO4: Classify the typical graphical pipeline.

CO5: Discuss hidden surface methods and elimination .

CO6: Design the colour model and its conventions.

SAE61 - WEB APPLICATIONS LAB

COURSE OUTCOMES:
After the completion of the course the students were able to:

CO1: Develop web-services and content management systems.

CO2: Write web application programs for data validation using javascript.

CO3: Design GUI based web form for online application shopping.

CO4: Create dynamic web applications.

CO5: Construct database applications.

CO6: Formulate database connectivity with MS Access.

B.Sc. DEGREE COURSE IN COMPUTER SCIENCE

REVISED REGULATIONS

Choice Based Credit System

(Effective from the academic year 2020-2021)

COURSE OUTCOMES

FIRST YEAR – FIRST SEMESTER

SE21A- PROBLEM SOLVING USING PYTHON

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Discuss the fundamentals of Python programming.

CO2: List the computational problem-solving techniques in Python

CO3: Explain the application development and prototyping in Python.

CO4: Evaluate the exception handling functionalities.

CO5: Demonstrate the object-oriented programming concepts.

CO6: Develop graphical user interfaces.

SE211- PROBLEM SOLVING USING PYTHON LAB

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Describe the real-life application problems.

CO2: Implement the object-oriented concepts.

CO3: Develop the various control statements and looping in python.

CO4: Interpret the features of Python.

CO5: Demonstrate towers of hanoi using recursion.

CO6: Create files and apply the primitive operations in Python.

FIRST YEAR-SECOND SEMESTER

SE22A- COMPUTER ORGANIZATION

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Define major components and functions of a computer system.

CO2: Discuss the microstructure of a processor.

CO3: Develop an assembly language program in 8085.

CO4: Describe the operation of the DMA and peripheral interfaces.

CO5: Compare the concepts of CISC vs RISC.

CO6: Design the microprocessor architecture and its operations.

SE221- COMPUTER ORGANIZATION LAB

COURSE OUTCOMES:

At the end of the course the students are able to:

CO1: Implement the assembly language program in an 8085 microprocessor.

CO2: Summarize the programming logic in various aspects.

CO3: Write a program for sorting and searching an array of elements.

CO4: Develop 8085 assembly programs for code conversion.

CO5: Design an 8085 assembly language program with instruction sets.

CO6: Create simple applications with 8085 microprocessors.

SECOND YEAR-THIRD SEMESTER

SE23A-JAVA AND DATA STRUCTURES

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Design standalone applet applications.

CO2: Choose the data structure for a given situation.

CO3: Create a problem with Stack and Queue.

CO4: Classify infix to postfix conversions.

CO5: Implement packages, inheritance, and interfaces.

CO6: Examine the traversal of graphs.

SE231-PRACTICAL-III -DATA STRUCTURES USING JAVA LAB

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Describe the appropriate data structure for a given problem.

CO2: Compare trees and their traversal operations.

CO3: Discuss abstract data types and operations.

CO4: Implement sorting and pattern matching.

CO5: Develop the graph traversal program in data structures.

CO6: Implement various operations on linear and non-linear data structures.

SECOND YEAR-FOURTH SEMESTER

SE24A-WEB TECHNOLOGY

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Study the basics of computer networks and PHP.

CO2: List the steps to creating web pages.

CO3: Formulate a solution to complex problems in Web Services Content Management.

CO4: Develop tools that assist in automating data transfer over the Internet.

CO5: Demonstrate tasks that are accomplished in internet programming.

CO6: Create Database Connectivity in MySQL

SE241-WEB TECHNOLOGY LAB

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Develop an application program in PHP.

CO2: Demonstrate the use of the World Wide Web.

CO3: Create dynamic web applications and e-commerce with PHP.

CO4: Construct post and publish PHP website.

CO5: Connect MySQL database and establish .

CO6: Examine client-side and server-side scripts.

THIRD YEAR- FIFTH SEMESTER
COMPUTER NETWORK

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Summarize the basic taxonomy of computer networking.

CO2: Discuss various ISO layers.

CO3: Examine the basic taxonomy of computer networking.

CO4: Create routing techniques for IP network infrastructure.

CO5: Identify data transmission collisions and their resolution.

CO6: Describe the process for delivering internet packets.

OPERATING SYSTEM

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Categorize fundamental concepts and roles of operating systems.

CO2: Differentiate multiprocessing, multiprogramming, and multitasking.

CO3: Design the Android Operating System.

CO4: Discuss I/O and file management techniques.

CO5: Identify various process management concepts.

CO6: Compare UNIX and Windows-based OS.

RELATIONAL DATABASE MANAGEMENT SYSTEM

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Discuss the fundamental concepts of database systems.

CO2: Analyze functional dependencies for robust database applications.

CO3: Discuss the need for transaction processing and concurrent data access.

CO4: Create an RDBMS Data Model and Schemas

CO5: Write PL/SQL programs in packages and triggers.

CO6: Recognize database normalization and functional dependency techniques.

OPERATING SYSTEM LAB

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Classify basic UNIX commands and system calls.

CO2: Summarize the process management policies and scheduling processes by CPU.

CO3: Categorize memory management and its allocation policies.

CO4: Formulate instance of a problem in CPU scheduling

CO5: Identify the requirement for process synchronization.

CO6: List the various operations of the file system.

PL/SQL LAB

COURSE OUTCOMES:

On successful completion of the course the students are able to:

CO1: Generalize the DDL and DML commands, as well as the constraints they impose.

CO2: Write queries and subqueries to extract insights from the database.

CO3: List the functions and stored procedures that work.

CO4: Express SQL clauses and aggregate functions.

CO5: Learn critical-thinking techniques for solving unstructured problems.

CO6: Develop solutions using database concepts for real-time requirements.

ELECTIVE

ARTIFICIAL INTELLIGENCE AND EXPERT SYSTEM

COURSE OUTCOMES:
After the completion of the course the students were able to:

CO1: Analyze the workings of modern applications in artificial intelligence.

CO2: Identify problems that are amenable to resolution by AI methods.

CO3: Formalize a given problem in the language or framework of different AI methods.

CO4: Apply AI techniques to real-world problems for intelligent systems.

CO5: Create an empirical evaluation algorithm based on a formalized problem.

CO6: Demonstrate the various applications of AI.

GRAPHICS AND VISUALIZATION

COURSE OUTCOMES:
After the completion of the course the students were able to:

CO1:Describe the fundamental concepts of computer graphics.

CO2: employs fundamental interaction programming principles.

CO3: Category color palettes for visualization, perception, and cognition.

CO4: Identify opportunities for data visualization application in various domains.

CO5: Design an informative visualization of data sets.

CO6: Compare information visualization with scientific visualization.

NETWORK SECURITY

COURSE OUTCOMES:
After the completion of the course the students were able to:

CO1: Identify network security applications.

CO2: Examine security flaws and malware.

CO3: Compose and secure a message over an insecure channel by various means.

CO4: Examine the symmetric and asymmetric encryption systems.

CO5: Develop policies to manage enterprise security risks.

CO6: Implement system-level security applications.

THIRD YEAR- SIXTH SEMESTER

SOFTWARE ENGINEERING

COURSE OUTCOMES:
After the completion of the course the students were able to:

CO1: Create a life cycle for a software engineering process.

CO2: Design and deliver high-quality software.

CO3: Analyze the common threats in each domain.

CO4: Identify the role of project management.

CO5: Predict modularity and coding standards state issues.

CO6: Develop working relationships with various stakeholders of the project.

INTRODUCTION TO DATA SCIENCE

COURSE OUTCOMES
After the completion of the course the students were able to:

CO1: Identify probability distributions model to data and communication.

CO2: Classify the whole process of extracting knowledge from data.

CO3: Define the methods based on statistics and informatics for data management.

CO4: Examine execution methods involved in Data Science.

CO5: Discuss machine learning and its types.

CO6: Develop learned concepts for modeling and disease prediction.

INTRODUCTION TO CLOUD COMPUTING

COURSE OUTCOMES:
After the completion of the course the students were able to:

CO1: Illustrate levels of services of Cloud.

CO2: Discuss the fundamental principles of distributed computing.

CO3: Express the relationship between the grid and cloud distributed environment.

CO4:Identify security studies,deployment and backup in the context of cloud infrastructure.

CO5: Analyze the performance of Cloud Computing.

CO6: Associate the concept of Cloud Security and Cloud Infrastructure Model.

PRACTICAL - VII CASE TOOLS AND TESTING TOOLS LAB

COURSE OUTCOMES:
After the completion of the course the students were able to:

CO1: Analyze the problem at hand.

CO2: Design an application with an object oriented approach.

CO3: Apply suitable patterns in system design.

CO4: Differentiate the real world domain problems and its mapping.

CO5: Plan correctness of their software through testing tools.

CO6: Compare object oriented analysis and system design concepts.

PRACTICAL - VIII MINI PROJECT

COURSE OUTCOME:
After the completion of the course the students were able to:

CO1: Deploy a quality software project with necessary business logic.

CO2: Apply the programming knowledge in the design and implementation of the proposed work.

CO3: Develop an application using the latest programming language, tool and software.

CO4: Integrate the front end user interface with the backend data stores.

CO5: Incorporate primitive operations, report generation and modularization etc.

CO6: Prepare the proper documentation of software projects.

MOBILE COMPUTING

COURSE OUTCOMES:

After the Completion of the Course the Students were able to:

CO1: Discuss the basics of mobile telecommunication systems.

CO2: Select the required functionality at each layer for a given application.

CO3: Develop a mobile application using simulator tools and design ad hoc networks .

CO4: Demonstrate use of professional and ethical issues.

CO5: Apply current practice in mobile computing contexts.

CO6: Design the context-aware solutions for mobile devices.

BLOCKCHAIN TECHNOLOGY

COURSE OUTCOMES:

On successful completion of the course the students are able to:

CO1: State the basic concepts of block chain technology.

CO2: Interpret the working of hyper ledger fabric.

CO3: Implement SDK composer tools and digital identity for the government.

CO4: Explain how block chain systems work (mainly Bitcoin and Ethereum).

CO5: State the application of block chain in the financial sector, invoice management etc.

CO6: Describe basic concepts of digital identity, cryptography, privacy and security issues.

Non Major Elective- TRENDS IN PERSONAL COMPUTERS

COURSE OUTCOMES:
On successful completion of the course the students are able to:
CO1: Describe the generations of computers.

CO2: Compare various storage media.

CO3: Discuss current trends in personal computers.

CO4: State the binary representation and logics.

CO5: Describe the real applications of personal computers.

CO6: Enumerate the essential hardware and its functions.

Non Major Elective- UNDERSTANDING INTERNET

COURSE OUTCOMES:

At the end of this course the student can answer how to:

CO1: Describe mass media, infotainment, demography, psychographic segmentation.

CO2: Integrate frontend and backend web technologies in distributed systems.

CO3: Deploy web applications in different web servers.

CO4: Migrate the web applications to the other platforms like .Net .

CO5: Identify cyber crime issues.

CO6: State the cryptographic techniques.

DEPARTMENT OF COMPUTER SCIENCE

M.Sc Computer Science

PROGRAM OUTCOMES & PROGRAM SPECIFIC OUTCOMES (PO & PSO)

PROGRAM OUTCOMES (PO)

After the completion of the course the students were able to:

PO1: Apply the basic principles of hardware logic, operating system and programming language in the field of computation.

PO2: Solve the problems effectively, which includes a systematic approach that can break down the complex problems into individual manageable components.

PO3: Present the technical competence in any professional forum.

PO4: Formulate the application development individually to solve the practical problems.

PO5: Create the domain expertise that can be used in the computer science research.

PO6: Produce real time applications for the societal benefits.

PROGRAM SPECIFIC OUTCOMES (PSO)

After the completion of the course the students were specifically able to:

PSO 1: Creating programs using diverse programming languages and frameworks that is suitable for the society.

PSO 2: Design network, mobile and web-based computational systems with realistic constraints deployed.

PSO 3: Utilise the technical skills to be effective in research in computer-related areas.

M.Sc. COMPUTER SCIENCE

REVISED REGULATIONS

Choice Based Credit System

(Effective from the academic year 2015-2016)

COURSE OUTCOME

First Year – FIRST SEMESTER

DESIGN AND ANALYSIS OF ALGORITHMS – PSD1A

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Describe a given problem using an effective algorithm.

CO2: Analyze the asymptotic performance of the given algorithm.

CO3: Select an appropriate data structure specific for the computational problem.

CO4: Apply various algorithm design techniques to solve the problem.

CO5: Demonstrate problems like: sorting, knapsack, 8-queens and travelling salesman.

CO6: Categorize the nature of the problem NP hard or NP complete.

ADVANCED JAVA PROGRAMMING – PSD1B

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Design enterprise level web applications with necessary business logic.

CO2: Implement server-side technologies to create dynamic web pages.

CO3: Create reusable java bean software components.

CO4: Describe the EJB and remote method invocation.

CO5: Connect a java application with the database using Java Database Connectivity (JDBC).

CO6: Extend the concept of Java Bean and JSP to work with applications like mail.

SYSTEM SOFTWARE - PSD1C

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Categorize the types of operating system and its functions.

CO2: Discuss commonly used language processors and assemblers.

CO2: List the difference between the passes of assembler.

CO3: Explain the macro concepts.

CO4: Apply knowledge of compilation and code optimization steps to mimic a simple compiler.

CO5: Demonstrate the working of various system software like assembler, loader and linker.

CO6: Development utilities in the work of linkers and loaders.

PRACTICAL – I: ALGORITHMS LABS – PSD11

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Choose an appropriate algorithm design technique to solve a given problem.

CO2: Identify the right algorithm for the given problem based on space and time complexity.

CO3: Implement the divide and conquer technique using: merge sort, quick sort etc.

CO4: Write sample programs using greedy approach.

CO5: Demonstrate the graph data structure using dynamic programming technique.

CO6: Use the principles of backtracking in 8 queen’s and Hamiltonian cycles..

ADVANCED JAVA PROGRAMMING LAB – PSD12

COURSE OUTCOMES:

On successful completion of the course the students are proficient enough to:

CO1: Build Java applications with database connectivity (JDBC).

CO2: Create dynamic web pages in Java Programming.

CO3: Demonstrate the working of Servlets and JSP.

CO4: Design an application using Remote Method Invocation (RMI).

CO5: Discuss a multi-tier architecture of web-based enterprise applications .

CO6: Develop a network application program.

First Year – SECOND SEMESTER

COMPUTER NETWORKS – PSD2A

COURSE OUTCOMES:

After the Completion of the Course the Students were able to:

CO1: Classify different network models.

CO2: Describe the working procedure of ISO layers.

CO3: Analysis of networking protocols and their hierarchical relationships

CO4: Discover various network security issues, solutions, and simplifications.

CO5: Identify the possible network hardware and software.

CO6: Compare the different types of network applications.

DIGITAL IMAGE PROCESSING - PSD2B

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Discuss the fundamental concepts of a digital image processing system.

CO2: Analyze images in the frequency domain using various transformations.

CO3: Evaluate the techniques for image enhancement and image restoration.

CO4: Categorize various compression techniques.

CO5: Interpret image restoration standards.

CO6: Demonstrate image segmentation and representation techniques.

MOBILE COMPUTING - PSDEA

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Describe the infrastructures and technologies used in mobile computing.

CO2: Define the possible future of mobile computing applications.

CO3: List mobile technologies in terms of hardware, software, and communications.

CO4: Analyze mobile computing frameworks and architectures.

CO5: Use of mobile operating systems in developing mobile applications.

CO6: Distinguish mobile technology functions to enable other computing technologies.

COMPUTER GRAPHICS - PSDEC

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Discuss the working principles of video display devices.

CO2: State the fundamentals of 2D, 3D transformation.

CO3: Summarize the significance of clipping, viewing and projections.

CO4: List the surface detection methods.

CO5: Explain the basics of computer animation with examples.

CO6: List the geometrical primitives for 3D representation and color models.

OBJECT ORIENTED ANALYSIS AND DESIGN – PED2A

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Solve the problems using an object-oriented approach.

CO2: Use UML notation to represent data and interact with customers to refine UML diagrams.

CO3: Develop a software project from requirements gathered to implementation.

CO4: Discuss estimation and maintenance of software systems.

CO5: Describe the fundamentals of modelling a software project.

CO6: Illustrate various object-oriented approaches in analysing and designing systems.

PRACTICAL – III: RDBMS LAB - PSD21

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Demonstrate fundamental skills in utilising the various tools of VB 6.0 IDE.

CO2: Implement SDI and MDI applications.

CO3: Discuss the connectivity between VB and the ORACLE database.

CO4: Assess the methods and techniques to develop the projects.

CO5: Design a database schema for a given problem domain.

CO6: Examine the database using SQL DQL, DDL, DML, DCL, TCL commands.

PRACTICAL – IV: IMAGE PROCESSING USING JAVA LAB - PSD22

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Discuss the practical applications of image manipulation.

CO2: Demonstrate the concepts of digital image enhancement through algorithms.

CO3: Construct the techniques of colour image enhancement.

CO4: Describe the concepts behind histogram processing.

CO5: Interpret the concepts of the spatial domain with smoothing filters.

CO6: Create practical intensity transformation applications.

SECOND YEAR – THIRD SEMESTER

PRINCIPLES OF COMPILER DESIGN – PSD3A

COURSE OUTCOMES:
After the completion of the course the students were able to:

CO1: Classify the fundamental concepts of the compiler.

CO2: Assess the application of finite state machines and parsers.

CO3: Implement a small set of middle-end optimizations.

CO4: Use modern tools and technologies for designing new compilers.

CO5: Examine the lexical, syntactic, and semantic structure of advanced language features.

CO6: Describe techniques for optimising intermediate code machine code.

INFORMATION SECURITY – PSD3B

COURSE OUTCOMES:

On successful completion of the course the students were able to:

CO1: Describe different types of network security applications.

CO2: Examine the security attacks in information security.

CO3: Interpret the fundamental techniques of computer security.

CO4: Determine the potential security issues.

CO5: Enumerate the authentication and access control methods.

CO6: Demonstrate the objectives of the security policy.

ARTIFICIAL INTELLIGENCE – PSD3C

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Describe the properties of the environment and types of agents in AI.

CO2: Summarize searching, constraint satisfaction, gaming techniques and applications of AI.

CO3: Apply logical theory in perception, reasoning and learning activities.

CO4: Explain the role of agents in planning, reasoning and complex decision making.

CO5: State about learning agent and neural network models.

CO6: Express the essential peripherals and working mechanism of robots.

CRYPTOGRAPHY – PSDEE

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Summarize the basic concepts of digital signature and authentication.

CO2: Discuss the intrusion detection mechanism.

CO3: Design classical encryption techniques and block ciphers.

CO4: Implement the various key management techniques in cryptography.

CO5: Analyze data encryption standards in cryptographic primitives.

CO6: List the ways to achieve common security goals.

MULTIMEDIA SYSTEMS – PSDEG

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Describe the various realisations of multimedia tools and their uses.

CO2: Analyse the structure of the tools in the light of low-level constraints.

CO3: Conduct an experiment to test user perception of multimedia tools.

CO4: Discuss the properties of different media streams.

CO5: Compare different multicast protocols.

CO6: Describe the mechanisms for ensuring QoS in the network.

CLOUD COMPUTING - PSDEJ

COURSE OUTCOMES:

After the completion of the course the students were able to

CO1: Summarize the service levels in cloud computing.

CO2: Implement the fundamental principles of distributed and fog computing.

CO3: Construct lower level services in distributed computing environments.

CO4: Demonstrate the importance of virtualization in the distributed environment.

CO5: Analyze the performance of the cloud.

CO6: Classify the cloud security and cloud infrastructure model.

E - COMMERCE - PSDEH

COURSE OUTCOMES:

After the completion of the course the students were able to:

CO1: Discuss the way E-commerce affects business models and strategies.

CO2: Interpret the different types of E-commerce.

CO3: Describe the steps that should be taken to create an E-commerce business.

CO4: Determine the most significant security risks in the E-commerce environment.

CO5: Differentiate procurement and supply chains in B2B E-commerce.

CO6: Identify the security threats in the E-commerce environment.

PRACTICAL V: Mini Project – PSD34

COURSE OUTCOME:

After the completion of the course the students were able to:

CO1: Develop software applications for real-time problems.

CO2: Demonstrate the technical knowledge of the project.

CO3: Formulate the problem identification and its solution.

CO4: Complete the project with specified standards.

CO5: Modularize and include primitive operations that are specific for the project.

CO6: Communicate effectively with the community of interest.

SECOND YEAR – FOURTH SEMESTER

MAIN PROJECT – PSD4Q

COURSE OUTCOMES:

At the time of the project deployment the students are able to:

CO1: Choose the right development language.

CO2: Describe the structure and control flow of the project.

CO2: Modularize the project based on the functionality.

CO4: Integrate the application with the database using special interfaces and tools.

CO5: Sketch the ER, dataflow and state diagrams of the project.

CO6: Demonstrate the completed project on time.