SHRI SHANKARLAL SUNDARBAI
SHASUN
JAIN COLLEGE FOR WOMEN
A Unit of Sri S. S. Jain Educational Society | Affiliated to University of Madras
Accredited with 'A' Grade by NAAC | An ISO 9001:2008 Certified Institution

DEPT: Computer Applications   **Year: I   Semester: I**

SUBJECT NAME: Fundamentals of Digital Computers   **SUBJECT CODE: SAU1A**

(Learning Outcome/ Acquisition)

CO1   Understanding the fundamentals of computers, generations of computers and operating system

CO2   Masters with number conversions, logic gates and truth table.

CO3   Acquire knowledge about Boolean algebra, Karnaugh map and Tabulation method.

CO4   Familiar with flip-flops, registers and counters.

CO5   Uses and working of adder/subtractor, encoders/decoders and multiplexer/demultiplexer

DEPT: Computer Applications   **Year: I   Semester: I**

SUBJECT NAME: PC Software Lab   **SUBJECT CODE:SAZ11**

(Learning Outcome/ Acquisition)

CO1   Demonstrate the mechanics and uses of Word tables to organize and present data.

CO2   Demonstrate working knowledge of Word's advanced formatting techniques, mail merge and presentation styles.

CO3   Demonstrate working knowledge of organizing and displaying large amounts and complex data,

CO4   Using clip art to enhance ideas and information in Excel worksheets, use of using Excel templates

CO5   How to secure information in an Excel workbook

CO6   Demonstrate the basic mechanics of creating a PowerPoint presentation and formatting techniques and   Presentation styles.

CO7   5   Design the slide with its templates and working with charts.

DEPT: Computer Applications   **Year: I   Semester: I**

SUBJECT NAME: Stress Management   **SUBJECT CODE: SNT1C**

(Learning Outcome/ Acquisition)

CO1   Understand the meaning of stress, its reaction and its cycle

CO2   Should know how to adapt accordingly when they are in stress and its consequences to overcome along with the stress model.

CO3   Knowledge about stress management and the ways to control stress and successful life after analysing by managing the stress

CO4   Learn about self assessment when they are in stress and how to communicate when they are in stress along with time management.

CO5   Demonstrate how to make relax themselves from stress by its techniques.

DEPT: Computer Applications   **Year: I   Semester: I**

SUBJECT NAME: Allied Mathematics I   **SUBJECT CODE: SBAMM**

(Learning Outcome/ Acquisition)

CO1   Students will be able to find the summation of series, apply newton's forward, backward interpolation formula when the intervals are equally spaced. They will know to use lagrange's interpolation formula when the intervals are not equally spaced.

CO2   Students will know the different types of matrices, they will know to find the eigen values, eigen vectors and the inverse of a given matrix using cayley Hamilton theorem.

CO3   Students will know to solve the equations whose roots are in A.P, G.P and H.P. They will know how to solve a reciprocal equation.

CO4   Students will be able to expand sin, cos and tan in a series of sines, cosines and tangents of multiples of θ.

CO5   Students will know to apply Leibnitz theorem. Students will be able to find the radius of curvature in Cartesian co.ordinates and will be able to find the maximum and minimum values of a given function.

DEPT: Computer Applications   **Year: I   Semester: II**

SUBJECT NAME: Programming in C   **SUBJECT CODE: SAE1A**

(Learning Outcome/ Acquisition)

CO1   Understand the basic terminology used in computer programming

CO2   Write, compile and debug programs in C language.

CO3   Use different data types in a computer program.

CO4   Design programs involving decision structures, loops and functions.

CO5   Explain the difference between call by value and call by reference

CO6   Understand the dynamics of memory by the use of pointers.

CO7   Use different data structures and create/update basic data files.

DEPT: Computer Applications   **Year: I   Semester: II**

SUBJECT NAME: Programming in C Lab   **SUBJECT CODE: SAE11**

(Learning Outcome/ Acquisition)

CO1   To understand various control structures and to implement them

CO2   To acquire knowledge on String fundamentals and perform operations using string built- in functions

CO3   To learn the concept of recursive functions and its execution through various e examples

CO4   To understand the essentials of arrays, its storage and its manipulation

CO5   To learn the various searching and sorting techniques and able to understand their efficiency.

DEPT: Computer Applications   **Year: I   Semester: I**

SUBJECT NAME : Interpersonal Relationship Skills Training SUBJECT CODE : `SNT2E`

(Learning Outcome/ Acquisition)

CO1   Understand interpersonal skills, its qualities and the positivity of the life.

CO2   Identify the types of skills, how to counsel others, how to behave when they are in group work.

CO3   Basic behaviour how to behave socially with all with their limits.

CO4   Exposed with different environment to know its impact.

CO5   With the help of activities students can feel the simplicity of life and they can handle all situations by self analysing, can express if need in body languages etc.

DEPT: Computer Applications   **Year: I   Semester: I**

SUBJECT NAME: Allied Mathematics II   **SUBJECT CODE: SBAMN**

(Learning Outcome/ Acquisition)

CO1   Students will be able to apply Bernoulli's formula and find the fourier series for the function in the interval $(\alpha, \alpha + 2\pi)$.

CO2   Students will know how to solve an ordinary differential equation and partial differential equation.

CO3   Students will know to find the laplace transform of a given function and also to compute its inverse.

CO4   Students will be able to find the divergence, curl of a given vector and will be also be able to find whether a given vector is solenoidal or not.

CO5   Students will know to apply Gauss, Green's and Stokes theorem.

DEPT: Computer Applications   **Year: II   Semester: III**

SUBJECT NAME: Programming in c++ & Data Structures   SUBJECT CODE: SAZ3A

(Learning Outcome/ Acquisition)

CO 1   Analyze and design strategies for solving basic programming problems.

CO 2   Use primitive data types, selection statements, loops, functions to write programs.

CO 3   Develop programs to solve a variety of problems in math, science, business, and games.

CO 4   Familiar with basic data structure of algorithms, Be familiar with writing recursive

       methods by using C++.

CO 5   Master the implementation of linked data structures such as linked lists and binary

       trees.

DEPT: Computer Applications   **Year: II   Semester: III**

 SUBJECT NAME: Programming in c++ & Data Structures Lab SUBJECT CODE:SAZ31

CO 1   Be able to develop, design and implement simple computer programs.

CO 2   Understand functions and parameter passing.

CO 3   Be able to do numeric (algebraic) and string-based computation.

CO 4   Understand object-oriented design and programming.

CO 5   Understand dynamic memory allocation and pointers.

CO 6   Be able to design, implement, and test relatively large C++ programs.

DEPT: Computer Applications   **Year: II   Semester: III**

SUBJECT NAME: Microprocessor   **SUBJECT CODE: SAZ3B**

(Learning Outcome/ Acquisition)

CO1   Understood the architecture of Microprocessor and Instruction set.

CO2   Able to develop simple program in ALP.

CO3   Familiarized with internal design counters and time delay between events.

CO4   Implemented various conversions and BCD operations.

Co5   Learn about DMA controller and different interrupts.

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DEPT: Computer Applications   **Year: II   Semester: III**

SUBJECT NAME: Numerical & Statistical Methods   **SUBJECT CODE: SAZ3C**

(Learning Outcome/ Acquisition)

CO1   Acquired knowledge of various methods to solve system of simultaneous
equations and understand the applications of these methods

CO2   Inculcate problem solving ability in numerical differentiation and integration.

CO3   Understand basic statistics, measures of central tendency, measures of dispersion
and its uses.

CO4   Acquired the general idea about probability and its application, various
distributions in real life situations.

CO5   Understand the concept of correlation, regression and various test of significance.

DEPT: Computer Applications   **Year: II   Semester: IV**

 SUBJECT NAME: Java Programming   **SUBJECT CODE: SAZ4A**

(Learning Outcome/ Acquisition)

CO1   Learn the basic concepts& techniques of java.

CO2   Learn the advanced concepts of java.

CO3   Generate an application based upon the concepts of java & advance java.

CO4   knowledge of the structure and model of the Java programming language, (knowledge) Use the Java programming language for various programming technologies (understanding)

CO5   Develop software in the Java programming language, (application)

CO6   Evaluate user requirements for software functionality required to decide whether the Java programming language can meet user requirements (analysis)

CO7   Propose the use of certain technologies by implementing them in the Java programming language to solve the given problem (synthesis)

CO8   Choose an engineering approach to solving problems, starting from the acquired knowledge of programming and knowledge of operating systems.

DEPT: Computer Applications   **Year: II   Semester: IV**

 SUBJECT NAME: Java Programming Lab   **SUBJECT CODE: SAZ41**

(Learning Outcome/ Acquisition)

CO1   Write programs based upon java concepts.

CO2   Create animation & events based upon advanced java concepts.

CO3   Connect an application with database.

CO4   Develop programs using java collection API as well as java Standard Library.

CO5   Write, debug & document well structured java application

DEPT: Computer Applications **Year: II Semester: IV**

SUBJECT NAME: Operating System **SUBJECT CODE: SAZ4B**

(Learning Outcome/ Acquisition)

CO1 Master functions, structures and history of operating systems

CO2 Master understanding of design issues associated with operating systems

CO3 Master various process management concepts including scheduling, synchronization, deadlocks

CO4   Familiar with multithreading

CO5   Master Concepts of memory management including virtual memory

CO6   Master System resources sharing among the users

CO7 Master Issues related to file system interface and implementation, disk management

CO8   Familiar with protection and security mechanisms

DEPT: Computer Applications   **Year: II   Semester: IV**

 SUBJECT NAME: Computer Graphics   **SUBJECT CODE: SAZ4C**

(Learning Outcome/ Acquisition)

CO1   Provide comprehensive introduction about computer graphics system, design algorithms and two dimensional transformations.

CO2   Make the students familiar with techniques of clipping, three dimensional graphics and three dimensional transformations.

CO3   Computer graphics course prepares students for activities involving in design, development and testing of modeling, rendering, shading and animation.

CO4   Implement various graphics drawing algorithms, 2D-3D transformations and clipping techniques.

DEPT: Computer Applications   **Year: II   Semester: IV**

SUBJECT NAME: Environmental Studies   **SUBJECT CODE: ENV4A**

(Learning Outcome/ Acquisition)

CO1	Describe environment and the need of public awareness
CO2	Distinguish renewable and non-renewable natural resources
CO3	Classify ecosystem and its features
CO4	Importance of biodiversity and its conservation
CO5	Categorize various pollution and its measures
CO6	Analyze various environmental ethics to solve urban problems
CO7	Knowledge on human rights and role of IT

DEPT: Computer Applications   **Year: III   Semester: V**

SUBJECT NAME: Database Management System   SUBJECT CODE: SAZ5A

(Learning Outcome/ Acquisition)

CO1   Aware of the components of DBMS and normalization.

CO2   Working with various queries and joins.

CO3   Get familiarized with design of forms and reports techniques.

CO4   Understand the concept of table operations and reports.

CO5   Acquire knowledge about the backup & recovery and client server systems.

DEPT: Computer Applications   **Year: III   Semester: V**

SUBJECT NAME: Software Engineering   **SUBJECT CODE: SAZ5B**

(Learning Outcome/ Acquisition)

CO1   Acquire strong fundamental knowledge in science, mathematics, fundamentals of computer science, software engineering and multidisciplinary engineering to begin in practice as a software engineer.

CO2   Deliver quality software products by possessing the leadership skills as an individual or contributing to the team development and demonstrating effective and modern working strategies by applying both communication and negotiation management skill.

CO3   Apply new software models, techniques and technologies to bring out innovative and novelistic solutions for the growth of the society in all aspects and evolving into their continuous professional development.

CO4   Design applicable solutions in one or more application domains using software engineering approaches that integrate ethical, social, legal and economic concerns.

CO5   Demonstrate verification and validation techniques,QA that provide robust software and its maintenance.

DEPT: Computer Applications   **Year: III   Semester: V**

SUBJECT NAME: Resource Management Techniques   SUBJECT CODE: SAZ5C

(Learning Outcome/ Acquisition)

CO1   Familiarity in introductory level operations research and models.

CO2   Learn to solve problems in linear programming problems.

CO3   Demonstrate the concept of transportation and assignment to solve optimization problems.

CO4   Effectively apply the concept of Sequencing and game theory

CO5   Be exposed to CPM , PERT and Simulation.

CO1   Understand holistic living, duties and responsibilities

CO2   Grow self-confidence, self-esteem in order to become a successful person

CO3   Know social values and human rights

CO4   Realize interdependencies of all beings and ecological balance.

CO5   Learn how to handle time and home management, stress management techniques for a   successful marital life.

DEPT: Computer Applications   **Year: III   Semester: VI**

 SUBJECT NAME: Web Technology   **SUBJECT CODE: SAZ6A**

(Learning Outcome/ Acquisition)

CO1   To have an overview of Internet Protocols and Client/Server models

CO2   To understand the basics of Web Designing using HTML, DHTML, and CSS.

CO3   Develop a well formed / valid XML document.

CO4   Develop a server side java application called Servlet to catch form data sent from client, process it and store it on database

CO5   Develop a server side java application called JSP to catch form data sent from client and store it on database.

DEPT: Computer Applications   **Year: III   Semester: VI**

 SUBJECT NAME: Web Tech Lab   **SUBJECT CODE: SAZ61**

(Learning Outcome/ Acquisition)

CO1   Develop skills in Web Designing using HTML, DHTML, and CSS.

CO2   Implement application protocols such as HTTP request, FTP, SMTP, POP3 in Java Socket Programming.

CO3   Develop programming skills using client side and server side scripting languages.

CO4   Develop Programming skills on internet based applications.

CO5   Design and development of sophisticated web sites and web applications.

DEPT: Computer Applications   **Year: III   Semester: VI**

SUBJECT NAME: Data Communication and Networking   SUBJECT CODE: SAZ6B

(Learning Outcome/ Acquisition)

CO1   Aware of the basic communication / networking terms and OSI model.

CO2   Understanding the use of transmission media, working of interfaces and different error detection and correction techniques.

CO3   Get familiarized with multiplexing and switching techniques. They also understand a few LAN and MAN protocols.

CO4   Learn the difference in technology for WAN architectures and understand the working of ATM.

CO5   To acquire the knowledge of networking and internetworking devices, routing algorithms and overall understanding of the WWW.

DEPT: Computer Applications   **Year: III   Semester: VI**

SUBJECT NAME: Object Oriented Analysis and Design   SUBJECT CODE: SEZ6C

(Learning Outcome/ Acquisition)

CO1   Understanding the concept of software development, Relationships between classes and objects.

CO2   Gaining enough competence in object-oriented analysis and design (OOAD).

CO3   Acquire knowledge about the Class visibility, UML object constraint.

CO4   Learn the difference in Macro and Micro Level process.

CO5   Get familiarized User satisfaction and Myer's debugging principles.

DEPT: Computer Applications   **Year: III   Semester: VI**

SUBJECT NAME: Client Server Computing   SUBJECT CODE: SEZ6C

(Learning Outcome/ Acquisition)

CO1   Comprehend the basic concepts of the client-server model.

CO2   Understand how Client-Server systems work.

CO3   Differentiate between two-tier and three-tier architectures.

CO4   Improve the performance and reliability of Client Server based systems.

CO5   Identify security and ethical issues in Client Server Computing.

DEPT: Computer Applications   **Year: III   Semester: VI**

 SUBJECT NAME: Software Testing   **SUBJECT CODE: SAZ6C**

(Learning Outcome/ Acquisition)

CO1   Demonstrate knowledge of the fundamentals of software testing.

CO2   Understand established testing concepts, the fundamental test process, test approaches, and principles to support test objectives.

CO3   Design and prioritize tests by using established techniques; analyze both functional and non-functional specifications at all test levels for systems with a low to medium level of complexity.

CO4   Execute tests according to agreed test plans, and analyze and report on the results of tests.

CO5   Be familiar with different types of testing tools and their uses.

DEPT: BCA   Year: II   Semester: V
SUBJECT NAME: Visual Programming   SUBJECT CODE: SEZ5A

(Learning Outcome/ Acquisition)

CO1.Demonstrate the   fundamentals of visual programming   and Graphical User Interface.

CO2. Understand the various control structures, functions and procedures of visual programming and write simple programs

CO3. Comprehend the essentials of arrays, Grid controls and t procedure

CO4.Apply common controls, MDI and optimization

CO5. Implement DLL Server, OLE automation and file processing methods.

DEPT: BCA   Year: II   Semester: V
SUBJECT NAME: RDBMS LAB   SUBJECT CODE: SEZ51

(Learning Outcome/ Acquisition)

CO1. Demonstrate various controls in VB GUI environment.

CO2. Apply data controls and connectivity through Oracle.

CO3. Evaluate projects by using insert, elete and modify operations.

CO4. Comprehend the use of MDI forms

CO5. Validation through data reports.

DEPT: BCA   Year: II   Semester: IV
SUBJECT NAME: Cost and Management Accounting   SUBJECT CODE: SBZ4A

(Learning outcome/ Acquisition)

1. To acquire knowledge on cost and management account
2. To understand the concept about material cost
3. To learn about overheads
4. To understand the concept of fund flow and cash flow statements
5. To acquire knowledge on marginal costing , ratio and budget.