

Govt. Shivalik College Naya Nangal
Teaching Plan(2023-24) Class: B.A & B.sc (Sem-I)

Subject: Computer Science

Paper: Fundamentals Of IT

Name :Pooja Sharma

Sr. No	Dates	Topics
1	1-5 Aug	Computer Fundamentals: Block diagram of a computer, characteristics of computers and generations of computers. Categories of Computers - Supercomputer, mainframe computer, network server, Workstation, Desktop computers, notebook computer, Tablet PC, handheld PC, smart phone.
2	7-12 Aug	Input Devices: Keyboard, Mouse, Joy tick, Track Ball, Touch Screen, Light Pen, Digitizer, Scanners, Speech Recognition Devices, Optical Recognition devices – OMR, OBR, OCR
3	14-19 Aug	Output Devices: Monitors, Impact Printers - Dot matrix, Character and Line printer, Non Impact Printers – DeskJet and Laser printers, Plotter.
4	21-26 Aug	Memories: Memory Hierarchy, Primary Memory – RAM, ROM, Cache memory. Secondary Storage Devices - Hard Disk, Compact Disk, DVD, Flash memory.
5	28 aug-02 Sept	Software: Types of Software- System Software, Application Software, Firmware. Type of System Software: Operating Systems, Language Translators, Utility Programs, Communications Software.
6	4-09 Sept	Commonly Used Application Software: Word Processor, Spreadsheet, Database, Education, Entertainment Software. Computer Languages: Machine language, assembly language, high level language, 4GL.
7	11-16 sept	Commonly Used Application Software: Word Processor, Spreadsheet, Database, Education, Entertainment Software. Computer Languages: Machine language, assembly language, high level language, 4GL.
8	18-23 Sept	Number System: Non-positional and positional number systems, Base conversion, Concept of Bit and Byte, binary, decimal, hexadecimal, and octal systems, conversion from one system to the other. Binary Arithmetic: Addition, subtraction and multiplication, 1's

		complement, 2's complement, subtraction using 1's complement and 2's complement.
9	25-30 sept	Computer Codes: weighted and non-weighted code, BCD, EBCDIC, ASCII, Unicode. Computer Network: Network types, network topologies
10	02-07 oct	Internet Related Concepts: Internet, World Wide Web, Hypertext, Uniform Resource Locator, Web Browsers, IP Address, Domain Name, Internet Services Providers, Internet Security, Web Search Engine, Net Surfing, web portal, Wiki, Blog
11	9-14 Oct	Advanced Trends in IT : Mobile Internet, GPS, 3G, 4G, Wi-Fi, Bluetooth, Cloud Technology, Virtual LAN Technology, Firewall, E-Commerce, M-Commerce, Nanotechnology,
12	16-21 Oct	Applications of IT: IT in Business and Industry, IT in Education & training, IT in Science and Technology, IT and Entertainment.
13	23-28 oct	MST exams
14	30-04 Nov	Current Trends in IT Application - AI, Virtual Reports, voice recognition, Robots, Multimedia Technology.
15	6-11 Nov	Virtual Reality, BPO and KPO, Online shopping, Social Media - YouTube, FaceBook, LinkedIn, Twitter, Google+
16	17-18 Nov	Revision and PPT Presentation
17	20-25 Nov	Class test and Discussion about topics of Assignment

Govt. Shivalik College Naya Nangal
Teaching Plan(2023-24) Class: B.A & B.sc (Sem- III)

Subject: Computer Science

Paper: C PROGRAMMING AND DATASTRUCTURES

Name :Pooja Sharma

Sr. No	Dates	Topics
1	1-5 Aug	Overview of C Language: C Fundamental : Introduction to C, character set, identifiers, keywords, data types, constants, variable, user defined data types, arithmetic, unary, relational, logical, assignment and conditional operators & expression
2	7-12 Aug	Basic structure of a C program. Data I/O statement : single character I/O, formatted I/O, string I/O functions.
3	14-19 Aug	Control Structure: sequencing, alteration (if-else, switch, break, continue, go to, iteration while, do-while, for) and nested loops
4	21-26 Aug	Functions: Defining and accessing a function, passing arguments to a function, specifying arguments data types, function prototypes, recursion .
5	28 aug-02 Sept	Storage Classes- Automatic, External, Static, Register. Pointers and Structures: Character pointers, pointer to arrays, array of pointers.
6	4-09 Sept	Structure and Unions : Defining and processing structure, Unions
7	11-16 sept	Basic Notations and Array (Data Structure): Basic concept and notations, data structures, Types of data structure and data structure operations, mathematical notation and functions, algorithmic complexity
8	18-23 Sept	Big 'O' notation and time space trade off. Arrays: Linear array, Representation of Linear array in memory, Traversing Linear array, Insertion and deletion in an array,
9	25-30 sept	Stacks: Push and Pop in Stack. Representation of stack in memory (Using Arrays)
10	02-07 oct	Queues: Insertion and deletion operations .
11	9-14 Oct	Searching Techniques: Linear and binary search Sorting Techniques: Insertion sort.
12	16-21 Oct	selection sort, bubble sort, merge sort, quick sort.
13	23-28 oct	MST Exams
14	30-04 Nov	Arrays: Multi- dimensional array: Row-Major, Column Major order, space array
15	6-11 Nov	Preprocessor Directives.
16	17-18 Nov	Revision and PPT Presentation
17	20-25 Nov	Class test and Discussion about topics of Assignment

Teaching Plan(2023-24) Class: B.A & B.sc (Sem- V)

Subject: Computer Science

Paper: OBJECT ORIENTED PROGRAMMING USINGC++

Name :Pooja Sharma

Sr. No	Dates	Topics
1	1-5 Aug	Evolution of OOP : Procedure Oriented Programming, OOP Paradigm, Advantages and disadvantages of OOP over Functional Programming Approach.
2	7-12 Aug	Characteristics of Object Oriented Language : Classes, Objects, Inheritance, Reusability, User defined Data Types, Polymorphism and Exception Handling.
3	14-19 Aug	Introduction to C++ : Structure of C++ Program, Identifier and keywords, Constants, Data Types, C++ Operators, Type Compatibility, Variable Declaration, Reference Variable, Statements, Expressions, Manipulators. Input and Output Statements.
4	21-26 Aug	Control Statements : Conditional Expression, Loop Statements, Storage Class Specifiers : Automatic, Static, Register, Extern. Array, Pointer Arithmetic,
5	28 aug-02 Sept	Software : Types of Software- System Software, Application Software, Firmware. Type of System Software: Operating Systems, Language Translators, Utility Programs, Communications Software
6	4-09 Sept	Function in C++ : Function Prototyping, Defining a function, Types of functions. Methods of Parameter passing : by value, by address, by reference, Recursion
7	11-16 sept	Function Overloading : Virtual functions, pure virtual functions, operator overloading.
8	18-23 Sept	Classes : Data members and member functions, objects, arrays of class objects, Objects as function arguments, nested classes, inline member functions, static data members and static member functions, friend functions, dynamic memory allocation
9	25-30 sept	Constructors and Destructors : Default parameterized and copy constructors, multiple constructors in classes dynamic constructors. Rules for constructors and destructors, Const. objects.
10	02-07 oct	Inheritance : single inheritance, inheriting private members, types of derivation, multiple inheritance, multi-level inheritance, hierarchical inheritance, hybrid

		inheritance, container classes and member access control. Abstract class.
11	9-14 Oct	Polymorphism : Methods of achieving polymorphic behaviour.
12	16-21 Oct	Pointers: Pointers and classes, pointer to object, this pointer.
13	23-28 oct	MST Exams
14	30-04 Nov	Methods of Parameter passing : by value, by address, by reference, Recursion
15	6-11 Nov	Structures, Pointers and Structures, Unions, Bit Field Typed Enumerations
16	17-18 Nov	Revision and PPT Presentation
17	20-25 Nov	Class test and Discussion about topics of Assignment

Govt. Shivalik College Naya Nangal
Teaching Plan(2023-24)
Class: B.COM. PART-I (1st Semester)
Paper: COMPUTER APPLICATIONS IN BUSINESS
Name : Pooja Sharma

Sr. No	Dates	Topics
1	1-5 Aug	Computer: Introduction, Functions and Classification of Computer, Overview of Software and Hardware, Input and Output devices, Computer Memory: RAM, ROM
2	7-12 Aug	Number System and its Inter Conversion Introduction to Operating System.
3	14-19 Aug	DOS and WINDOWS, working with files and folder, Understanding the control panel, Opening and exiting Windows applications, Copying and moving information between windows and learning other basic functions of window (latest version)
4	21-26 Aug	Introduction to Word Processing, Word Processing concepts, Use of Templates, Working with word document: Editing text, Find the replace text, Formatting, spell check.
5	28 aug-02 Sept	Auto correct, Auto text; Bullets and numbering, Tabs, Paragraph formatting, Indent, Page formatting, Header and footer.
6	4-09 Sept	Tables: Inserting, Filling and formatting a table; Inserting Pictures and Video; Mail Merge: Including linking with Database; Printing documents.
7	11-16 sept	Preparing Presentations: Basics of presentations, Slides, Fonts, Drawing, Editing; Inserting:

		Tables, Images, texts, Symbols Media; Design; Transition; Animation; and Slide show.
8	18-23 Sept	<p>Creating Business Presentations using above facilities. Spread sheet and its Business</p> <p>Editing, and Printing a worksheet; Handling operations in Formula, Project involving</p> <p>multiple spread sheets, Organizing Charts and Graphs.</p>
9	25-30 sept	<p>Generally used Spread sheet functions: Mathematical, Statistical, Financial, Logical, Date</p> <p>and Time Look up and reference, Database, and Text functions. Graphical representation of</p> <p>data: Frequency distribution and its statistical parameters; Mean, Median, Standard</p> <p>Deviation. Correlation and Regression.</p>
10	02-07 oct	<p>Database Designs for Accounting and Business Applications: Reality-Expressing the</p> <p>Application; Creating initial design in Entity Relationship Model</p>
11	9-14 Oct	<p>Transforming E.R. Model to Relational Data Model Concepts Applying DBMS in Areas of</p> <p>Accounting & Inventory.</p>
12	16-21 Oct	<p>Frequency distribution and its statistical parameters; Mean, Median, Standard Deviation.</p> <p>Correlation and Regression.</p>
13	23-28 oct	MST EXAMS
14	30-04 Nov	<p>Concepts Applying DBMS in Areas of</p> <p>Accounting & Inventory.</p>

15	6-11 Nov	Applications: Spread sheet concepts, Managing worksheets; Formatting, Entering data,
16	17-18 Nov	Revision and PPT Presentation
17	20-25 Nov	Class test and Discussion about topics of Assignment