

Diploma in Computer Application (DCA)

Duration: 6 Months

Eligibility: 10th

Timings: 1 hr Theory and 1 hr Practical Class

Syllabus Coverage:

Fundamental of Computer:

Theoretical Work:- Introduction to Computer, Definition of Computer, Computer Characteristics, Classification of Computer, Input/Output Unit- CPU, History & Generations of Computers, Bit & Bytes, Introduction to Computer Hardware-Input & Output Devices, Memory & its types, Introduction to Computer Software & its Classification.

Practical Work: English typing-Tutor (*During theory of Fundamental*)

Operating System:

Theoretical Work:- Operating System- Definition & Function, Introduction to Window & its current versions, Introduction & types of Window.

Practical Works:- Start up window on your CPU & Monitor, Introduction to Window Accessories- Calculator, Note Pad, Word Pad, and Paint & Clock.

Microsoft Office: Word, Excel, PowerPoint

MS WORD

Theoretical Cum Work:- Introduction to MS Word, MS Word Screen, Title bar, Menu bar, Standard tool bar, Formatting tool bar, The Ruler, Status bar.

Practical Work:- To Create, Open, Save Documents etc: New Document, Page Setup of Document, Type words in Documents, Save/Save as Document, Open Document, Print Preview of Document, and Print.

To Edit Document: Undo typing, Redo typing, Cut, Copy, Paste, Office Clipboard, Select All, Find, Replace, Go to.

To View Document: Normal View, Web layout View, Print Layout View, Outline View, Task pane. Toolbar Options, Ruler View, Document Map, Header & Footer, Full Screen View, Zoom.

To Insert Date, Time Symbol, Picture etc. in Document: Page Number, Date & Time, Symbol, Picture-Clipart/FromFile/OrganizationChart/WordArt/AutoShapes/Chart, Comment, Hyperlink, Reference-Footer/Caption, Diagram, Textbox, File, object.

To Format font, paragraph etc. in documents: Font, Paragraph, Bullet & Numbering Border, Shading, Drop Cap, Change Case, Background, Theme, Style & Formatting.

To Create Table: Draw table, Insert table, Delete table, Select Table, Table Auto format, Convert text to table. Convert table to text.

MS EXCEL

Theoretical Cum Practical Work:- Introduction to MS Excel, MS Excel Screen, Standard tool bar, Formatting tool bar, Creating work book, Entering Data, Creating Formulas, Formatting a Worksheet, Inserting Table, picture, Charts, Sorting, Printing. Function-Statistical Function/Logical Function, Filtering Data. General Template- Loan Calculator, Invoice etc.

MS POWERPOINT

Theoretical cum Practical Work:- Introduction to MS PowerPoint, Main Elements of presentation-Slides/Handout/SpeakersNote/Outlines, Creating a presentation, To format Slides, To Insert- Table/Chart & other Drawing objects. To print Slides.

MS ACCESS

Theoretical cum Practical Work:- Introduction to MS Access, MS Access Screen, Title bar, Menu Bar, The toolbars, The status Bar, Create/Open/Close a database, Creating/Closing/Saving data tables, Relationships, Queries, Forms, Reports.

Programming Language C:

Overview of C: History of C, Importance of C, Structure of a C Program.

Elements of C: C character set, identifiers and keywords, Data types, Constants and Variables, Assignment statement, Symbolic constant.

Input/output: Unformatted & formatted I/O function in C, Input functions viz. scanf(), getch(), getche(), getchar(), gets(), output functions viz. printf(), putchar(), puts().

Operators & Expression: Arithmetic, relational, logical, bitwise, unary, assignment, conditional operators and special operators. Arithmetic expressions, evaluation of arithmetic expression, type casting and conversion, operator hierarchy & associativity.

Decision making & branching: Decision making with IF statement, IF-ELSE statement, Nested IF statement, ELSE-IF ladder, switch statement, goto statement.

looping: For, while, and do-while loop, jumps in loops, break, continue statement.

Functions: Definition, prototype, passing parameters, recursion.

Storage classes in C: auto, extern, register and static storage class, their scope, storage, & lifetime.

Arrays: Definition, initialization, processing an array, passing arrays to functions, Strings & arrays. **Strings in 'C':** Introduction, Declaration and initialization of string, String I/O, Array of strings, String manipulation functions: String length, copy, compare, concatenate, search for a substring.

Structure and Union: Introduction, Features of structures, Declaration and initialization of structures, Structure within structure, Array of structures, Structure and functions. **Union:** Introduction, Union of structures. Typedef, Enumerations.

Pointers: Introduction, Pointer variables, Pointer operators, Pointer assignment, Pointer, conversions, Pointer arithmetic, Pointer comparison, Pointers and arrays, Pointers and functions, Pointers and strings, Pointer to pointer, dynamic allocation using pointers malloc(), calloc(), realloc().

Files: Introduction, File types, File operations, File I/O, Structure Read and write in a file, Errors in file handling, Random-access I/O in files.

Preprocessor: Introduction, #define, macros, macro versus functions, #include, Conditional compilation directives, undefining a macro. Command line arguments: defining and using command line arguments.