CERTIFICATE COURSES ON INFORMATION TECHNOLOGY (IT)

   A. Certificate on Computer Fundamentals
   Course Code:VAE_IT01
   Duration: 3 Months(1+1+1)
   Course Level I   : Basic (30 Hours)
   Course Level II   : Core (30 Hours)
   Course Level III : Expert (30 Hours)
   Fees:₹500/-(For each level)
   Minimum Eligibility Criteria : HSLC Passed

   Objectives of the Course : Give students an in-depth understanding of why computers are essential components in business, education and society.

   Course Outcome : Upon completion of this course, the student will be able apply technical knowledge and perform specific technical skills.

   Syllabus
   Course Level I   : Basic (30 Hours)

UNIT- I: Fundamentals of Computers

Introduction to Computer - Hardware, Software, System Software, Application Software and examples of each. Types of computers - DeskTop, LapTop, Notepad, etc. Components of a Computer - Block Diagram of a Computer. ALU, CU, Primary Memory, RAM, ROM, PROM, EPROM, Secondary Memory - Floppy disk, Hard Disk, Magnetic Tape, Optical Media, CDROM, CD-r, CD-RW, DVD ROM, DVD. I/O Devices, Input Devices - Mouse, Keyboard, Joystick, Touch Panels, Scanner etc. Output Devices - Monitors, Printers, Plotters, Voice Generation System, etc.

UNIT-II :Operating System

Functions of an operating system, Different types of operating systems, Windows OS-An overview of different versions of windows, Basics of Windows - file types and basic operations on files and folders, Window elements, File management through Windows, Window Accessories. Introduction to LINUX, Basic Commands (types of file- directory, ordinary device file, types of user, vi editor).

Practical

Introduction to Computer and peripherals, operating system;

MS Word- Creation, storing, Modification, Formatting, Creation of Table, Splitting & Merging Cells, Sorting, Mail Merge, Macros.

Course Level II   : Core (30 Hours)

Office Automation Software (MS WORD,MS EXCEL, MS POWERPOINT, MS ACCESS)

Word Processing

Introduction to Word Processing , Features , Learning document window, Creating , Saving & Closing a document, Opening an Existing document , Editing a Document , Formatting Features (Paragraph Formats, Aligning text & paragraph, Border and Shading, Header & Footers, Bullet & Numbering) , Inserting & Editing a Table , Inserting Picture, Checking & Spelling Correction, Page Setup , Print Preview , Printing a document , Mail Merge , Document Template & Wizards.
Spreadsheet

Introduction to Spreadsheet, creating, saving and editing a workbook, Inserting, deleting Worksheets, Opening & Moving around in an existing worksheets, working with Formula & Cell referencing. Functions, working with ranges - creating, editing and selecting ranges. Format Feature: AutoFormat Feature, Changing alignment, Character styles, Date Format, Border & Colors etc. Previewing & Printing a worksheet, Creating Charts & Graphs. Database in worksheet, macro, linking and embedding.

Presentation

Introduction to MS PowerPoint- File creation, sorting, modification, insertion of slides, pictures, tables, videos, hyper link, presentation.

Practical

Introduction to Computer and peripherals, operating system;
MS Word- Creation, storing, Modification, Formatting, Creation of Table, Splitting & Merging Cells, Sorting, Mail Merge, Macros.
MS EXCEL-Opening/Saving a Worksheet Operations, Printing a Worksheet, Formulas and Functions, Graphs.
MS POWER POINT-File creation, sorting, modification, insertion of slides, pictures, tables, videos, hyper link, presentation.
MS ACCESS- Creating Database Structure, Opening and Closing Database files, Modifying and copying structure of Database files, Adding , Editing and Viewing data.

Course Level III : Expert (30 Hours)

COMPUTER NETWORK AND DBMS

Basics of Computer Networking, Types of Network Topology, Types of area networks – LAN, MAN and WAN, Layers of OSI Model

Database Concepts-Introduction, Database Abstraction, Different Data Models, The Relational Model.

Structured Query Language-Introduction, Processing Capabilities of SQL, DDL,DML, SQL processing.

Practical

SQL COMMANDS: CREATE TABLE, DROP TABLE, ALTER TABLE, UPDATE, INSERT, DELETE, SELECT…;