

## Certificate Course In Basic Course in Computer Applications & Operating System Technician (2026-2027)



The objective of this course is to present overview of IT tools used in day to day use of computers and data base operations. The Course has been designed to provide knowledge on various hardware and software components of computer, operating system, various packages used for different applications, data base concepts & operations and various issues related to IT and application of IT.

<b>Prerequisite</b>	:	None.
<b>Total Hours</b>	:	3 Months
<b>Job Description</b>	:	Computer Operator and Assistant
<b>Certification</b>	:	Government Approved
<b>Phone</b>	:	7006570529
<b>Level</b>	:	Expert Level
<b>Qualification</b>	:	10 <sup>th</sup> level
<b>Certification</b>	:	ICMS / NIELIT

**Learning Outcomes:** Upon successful completion of the course, the students will learn fundamental concepts of computer hardware and software and become familiar with a variety of computer applications including word-processing, spreadsheets and presentations

### Outline of Course

S. No.	Topic
1.	Introduction to Computer
2.	Number System
3.	Introduction to Operating System
4.	Microsoft DOS
5.	Microsoft Word
6.	Advanced Microsoft Excel
7.	Microsoft Power Point
8.	Introduction to Internet Computer Network:
9.	Compression Utilities
10.	Installation of operating System
11.	Configure Microsoft Outlook with Gmail

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1. **Introduction to Computer** : Introduction to Computer Input devices, Output devices, Computer Memory & storage, Application Software, Systems Software, Utility Software, Open source Proprietary Software Central Processing Unit,
2. **Number System**: Binary number system, Binary to Decimal Conversion, Decimal to Binary Conversion, Octal number system, Octal to Decimal Conversion, Decimal to Octal Conversion, Hexadecimal number system, Hexadecimal to Decimal Conversion, Decimal to Hexadecimal Conversion.
3. **Introduction to Operating System** : Operating System, Relation between System software and Application software, Functions of operating system, Multitasking, Multiprogramming, and Multiprocessing. Operating System simple setting, using mouse and changing its properties, changing system date and time, changing display properties, Add or remove Program File and Folder management, System tools – Disk cleanup, Disk defragmenter.
4. **MS Dos (Microsoft Disk Operating System)** : What Is Disk Operating System What is Command.Com, IO.sys, MSdos.sys , Internal Command & External Command File Management Command : Copy Con, Type, Rename, Del, Copy, Xcopy, Attrib, Backup, Restore, Find , Sort , More, Chkdsk, Restore, Find, Sys, Type, Del, Data, Time, prompt. Directory Command: Dir, MD, RD, Tree, Path.
5. **MS Word** :
  - a. **File** :Save, Save as , Open, Close, Recent, Print ,Print Preview **Home**: Cut, Copy, Paste, Format painter, Font Formatting., Paragraph Formatting, Find Replace and Goto
  - b. **Insert** : Pages : Cover Page, Blank Page, Page Breaks Insert Table, Table Formatting , Table Layout, Insert Picture , Picture Formatting, Text Wrapping Header and Footer , Page Numbering Insert – Textbox, Drop Cap, Date and Time, Symbols- Equation & Symbol
  - c. **Page Layout**: Page Themes, Page Setup- Margin, Orientation size, Column. Page Breaks - Page break, Column break. Page Background - Water Mark, Page color, Page border. Paragraph spacing, indent spacing, Justify
  - d. **Reference**: Footnote, Endnote, Caption, Comment
  - e. **Mail Merge** : Start mail merge, Excel Integration , Write and insert field, Preview result
  - f. **Review & View** : Word count, Spelling and Grammar , Comment , Document view, Show, Zoom
  - g. **File Operation and Security** : Password Security, Track Change, Convert PDF
  - h. **Advanced Tools**: Table of Contents, Indexes, Adding Comments, Tracking changes, Macros, Introduction to Google docs.
6. **Advanced MS Excel**
  - a. **Home** Merge and center, Wrap text, Increase decimal , Decrease decimal Conditional formatting Insert column , Delete column Editing – Auto Sum ,Fill, Clear
  - b. **Insert** Charts Pivot Chart Object Link Sheet and Rename Sheet
  - c. **Page layout** Print Area , Scaling , Page Background
  - d. **Formula**: Sum, Average, Max, Min, Mod. If, Sumif, Count if, Len, Count, Round. Left, Right, Concatenate. Time, Date, Day, Now, Today, Month, Now. Preparing marks Statement. Formula Auditing, Database Functions (DSU, M, DMIN, DMAX, DCOUNT, DCOUNTA), Vlookup and Hlookup , X lookup Introduction to Google Sheets.
  - e. **Data** : Sorting , Filter, Advanced Filter Data Validation, Consolidation ,Goal Seek , Scenario Manager Data Table Text to Columns, Remove Duplicate Subtotal, Group and Ungroup

- f. **Topic View** : Normal View, Page layout , Page Break, Custom View, Full Screen, Zoom Show : Ruler , Formula Bar , Heading and Gridlines,
- g. **Topic Windows** : New Window, Arrange All, Freeze panels, Split, Hide, View Side by Side , Synchronous scrolling , Reset Window Position , Save Workspace , Switch Window

## 7. MS Power Point

- a. **Home** : Paste Special , New slide, Slide Layout, Section & Arrange
- b. **Insert** : Smart Art, Action, Slide numbering, Video and Audio, Insert Object & Text , Word Art , Align-Align Centre, Right, Left, Top, Middle, Bottom
- c. **Slide Properties** : Slide Design , Slide Transition, Background style
- d. **Object Animation & Transition** : Animation, Advanced Animation Timing & Transition to the slide
- e. **Slide Show & View** : From beginning, From current show Custom Show, Setup show Hide Show, Rehearse Time, Record Slide Show, Presentation View- Normal,, Slide sorter Notes page, Reading View, Master View- Side Master, Handout Master, Notes Master Color/ Gray Scale View.

8. **Introduction to Internet Computer Network:** Internet, Growth of Internet, Intranet and Extranet, Local Area Network (LAN), Wide Area Network (WAN), Network Topology. Transmission media E-mail, Mail Box –Inbox and Outbox, SMTP Protocol, POP3 Protocol .

9. **Compression Utilities:** WinZip, PKZIP, Concept of compression, Defragmenting Hard, disk using defrag, Scan Disk for checking disk space, Floppy Disk, Setting System Date and Time, Antivirus Package CD Writing Software – Nero etc.

10. **Installation of operating System,** Installation of Other Software Packages such as Ms Office etc. Operation of Printer, Installation of printer driver, Backup and Restore Operations Troubleshooting PC Problems

11. Configure Microsoft Outlook with Gmail , Using Email Protocols

## Reference Book:

1. Libre Office, Getting Started Guide by LibreOffice Documentation Team
2. Computer Networking by Ed Tittel, McGraw Hills Companies
3. OpenOffice.org for DUMMIES by Gurdy Leete, Ellen Finkelstein and Mary Leet