NIELIT Virtual Academy
O Level Module-01(M1-R5.1)

O level- Module-01 (M1-R5.1 Information Technology Tools and Network Basics)

Objective

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

At the end of the course the students will be able to:-

- ✓ Acquire the foundation level knowledge required to understand computer and its operations.
- ✓ Understand the hardware and software components of the computer.
- ✓ Understand the basic concept of operating system and get knowledge about various different operating systems.
- ✓ Understand to use the packages of word processing, spread sheet and presentation in detail.
- ✓ Understand the issues related to IT and IT applications.

Methodology:

- ✓ **Video Lecture with text contents.**
- ✓ **24x7 Availability.**
- ✓ **Content Access through e-learning portal.**
- ✓ **Covers both Theory & Practical.**
- ✓ **Doubt clearing session for all units.**
- ✓ **Sample paper practice.**

Registration Link: http://nva.nielit.gov.in

***For NIELIT O Level Registration and Examination, please contact Course coordinator:
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Module: M1-R5.1 IT Tools and Network Basics

	Computer Appreciation and Organization
Unit 1	Computer and Latest IT gadgets, Evolution of Computers & its applications, IT gadgets and their applications
	Basics of Hardware and Software, Central Processing Unit, Input devices, Output devices, Computer Memory & storage,
	Application Software, Systems Software, Utility Software, Open source and Proprietary Software, Mobile Apps.
	Introduction to Operating System
Unit 2	Operating System, Basics of Operating System, Operating Systems for Desktop and Laptop, Operating Systems for Mobile Phone and Tablets
	User Interface for Desktop and Laptop, Task Bar, Icons & shortcuts, running an application
	Operating System simple setting, using mouse and changing its properties, changing system date and time, changing display properties
	Add or remove Program and its features, adding, removing &sharing Printers, File and Folder management, types of file extensions.
	Word Processing
Unit 3	Word Processing Basics, Opening Word Processing Package, Title Bar, Menu Bar, Toolbars & Sidebar, Creating a New Document
	Opening and Closing Documents, Opening Documents, Save and Save As, Closing Document, Using The Help, Page Setup, Page Layout, Borders, Watermark, Print Preview, Printing of Documents, PDF file and Saving a Document as PDF file
	Text Creation and manipulation, Document Creation, Editing Text, Text Selection, Cut, Copy and Paste, Font, Color, Style and Size selection, Alignment of Text, Undo & Redo, AutoCorrect, Spelling & Grammar, Find and Replace.
	Formatting the Text, Creating and using user defined Styles, Paragraph Indentation, Bullets and Numbering, Change case, Header & Footer
	Table Manipulation, Insert & Draw Table, Changing cell width and height, Alignment of Text in cell, Delete / Insertion of Row, Column and Merging & Splitting of Cells, Border and Shading
	Mail Merge, Table of Contents, Indexes, Adding Comments, Tracking changes, Macros
	Spreadsheet
Unit 4	Elements of Spread Sheet, Creating of Spread Sheet, Concept of Cell Address [Row and Column] and selecting a Cell, Entering Data [text, number, date] in Cells, Page Setup, Printing of Sheet, Saving Spreadsheet, Opening and Closing,
	Manipulation of Cells & Sheet, Modifying / Editing Cell Content , Formatting Cell (Font, Alignment, Style), Cut, Copy, Paste & Paste Special, Changing Cell Height and Width, Inserting and Deleting Rows, Column, AutoFill
	Sorting & Filtering, Freezing panes ,Formulas, Functions and Charts, Using Formulas for Numbers (Addition, Subtraction, Multiplication & Division), AutoSum
	Functions (Sum, Count, MAX, MIN, AVERAGE),Sort, Filter, Advanced Filter, Database Functions (DSUM, DMIN,DMAX, DCOUNT, DCOUNTA)
	What-if Analysis, Pivot table Charts (Bar, Column, Pie, Line), Data Validation.
	Presentation
Unit 5	Creation of Presentation, Creating a Presentation Using a Template, Creating a Blank Presentation, Inserting & Editing Text on Slides, Inserting and Deleting Slides in a Presentation, Saving a Presentation,
	Manipulating Slides, Inserting Table , Adding Pictures, Inserting Other Objects, Resizing

	and Scaling an Object
	Creating & using Master Slide, Presentation of Slides , Choosing a Set Up for Presentation, Running a Slide Show
	Transition and Slide Timings, Automating a Slide Show, Providing Aesthetics to Slides & Printing, Enhancing Text Presentation, Working with Color and Line Style,
	Adding Movie and Sound, Adding Headers, Footers and Notes, Printing Slides and Handouts
Introduction to Internet and WWW	
Unit 6	Basic of Computer Networks, Local Area Network (LAN), Wide Area Network (WAN), Network Topology
	Internet, Concept of Internet & WWW, Applications of Internet, Website Address and URL, Introduction to IP Address
	ISP and Role of ISP, Internet Protocol, Modes of Connecting Internet (HotSpot, Wifi, LAN Cable, BroadBand, USB Tethering), Identifying and uses of IP/MAC/IMEI of various devices
	Popular Web Browsers (Internet Explorer/Edge, Chrome, Mozilla Firefox, Opera etc.), Exploring the Internet , Surfing the web, Popular Search Engines, Searching on Internet, Downloading Web Pages, Printing Web Pages
E-mail, Social Networking and e-Governance Services	
Unit 7	Structure of E-mail, Using E-mails, Opening Email account, Mailbox: Inbox and Outbox, Creating and Sending a new E-mail
	Replying to an E-mail message, Forwarding an E-mail message, Searching emails, Attaching files with email, Email Signature
	Social Networking & e-Commerce, Facebook, Twitter, Linkedin, Instagram, Instant Messaging (Whatsapp, Facebook Messenger, Telegram), Introduction to Blogs
	Basics of E-commerce, Netiquettes, Overview of e-Governance, Services like Railway Reservation, Passport, e-Hospital [ORS], Accessing e-Governance Services on Mobile Using "UMANG APP", Digital Locker
Digital Financial Tools and Applications	
Unit 8	Digital Financial Tools, Understanding OTP [One Time Password]and QR [Quick Response] Code, UPI [Unified Payment Interface], AEPS [Aadhaar Enabled Payment System],
	USSD [Unstructured Supplementary Service Data], Card [Credit / Debit], eWallet, PoS [Point of Sale]
	Internet Banking, National Electronic Fund Transfer (NEFT), Real Time Gross Settlement (RTGS), Immediate Payment Service (IMPS), Online Bill Payment
Overview of Futureskills and Cyber Security	
Unit 9	Introduction to Internet of Things (IoT), Big Data Analytics, Cloud Computing, Virtual Reality, Artificial Intelligence, Social & Mobile
	Blockchain Technology, 3D Printing/ Additive Manufacturing, Robotics Process Automation
	Cyber Security, Need of Cyber Security, Securing PC, Securing Smart Phone