DAY	SESSION	SUBJECT - TOPIC
1	I	Registration & Inauguration
	II	About the Institute, rules & regulations of training / institute
	III & IV	Micro lab – Ice breaking Exercise
2	I	Achievement motivation – Confidence building
	II	Why Self Employment – Advantages over wage employment, Entrepreneurship development- What, why & how (introduction)
	III & IV	Entrepreneurial competencies – Importance, explanation with examples, case study for identification of different competencies
3	I	Problem solving – Explanation through case studies and exercises, Creativity – Creative thinking
	II	Time Management
	III & IV	Risk Taking & goal setting – Ring toss Exercise
4	I	Introduction to Electronics (Analog and Digital)
	II	Components – Explaining the Basics of Electronics
	III - IV	Identification of Resistor, Capacitor, Diodes & their functions
5	I	Introduction & Definition of Computer, Block Diagram of computer, Classification of computer, Characteristics of Computers, What is Language Types of Languages, and language translators.
	II	History and Generation of computers, Memory - Bits , Bytes, KB,MB,GB,TB,PB,EB,ZB,YB, Brontope byte, Geeope Byte. etc
	III	Computer Software, Types of Software with Ex. (System/Application/Utility S/W)
	IV	Computer Hardware, Intro. to Hardware components of computer.

6	I	Practical Demonstration on identifying the Important Hardware Components of PC. i.e., CPU, Motherboard, RAM, FDD, HDD, ODD, SMPS, K/B, Mouse, Monitor etc.
	II	
	III	Tools and equipments required for computer servicing and its handling
	IV	Demonstration of Assembling a new PC and Disassembling a PC. Measures & Cautions while Assembling & Disassembling PC's,
7	I& II	Business Game – Boat Building Exercise
	III	Practical on Identifying PC Hardware Components / Practical on Assembling a PC
	IV	Practical on Disassembling PC
8	I	Introduction to BIOS/CMOS Setup, POST (Power On Self-Test).
	II	Demonstration of BIOS/CMOS Configuration (Date, Time, Enable/Disable Devices). To explain Dual BIOS Feature
	III	Configuring Booting sequence of PC, Boot from HDD,CD/DVD, PenDrive etc.
	IV	Practical on BIOS/CMOS Setup, Booting Sequence/Boot Order
9	I	Introduction to Operating System, Definition, Types of Operating Systems - MS-Dos, Windows 9x/XP/Vista/7/8, Linux, MAC OS, Android etc. Process of Booting the Operating System.
	II	
	III	Intro. to What is File System - Types of File systems like FAT16/32, NTFS, ext3/4 etc. Intro. to Partitioning of Hard Drive.
	IV	Partitioning of Hard Drive - Primary, Extended, Logical partitions using Partition Tools.
10	I	Effective Communication Skills
	II	Practical on Creating Primary, Extended and Logical partition types using FAT/NTFS/extFile Systems. Learn to use Partition Tools like Partition Magic, Paragon Partition Manager, etc. Learn to Resize partitions without losing the Existing Data.
	III	
	IV	
11	I	Demonstration and Practical on Installation of Operating System - Win XP/Win 7. Activation and Automatic Updating procedures.
	II	

12	III	Explaining Computer Management, Disk Management, Defragmentation, Services and Applications, Local Users and Groups, Advanced System Settings, Device Manager, Task Manager, Windows Registry
	IV	Demonstration and Practical on Device Driver Installation, Task Manager, Windows Registry, Control Panel, MS Config Utility, Windows Startup Applications Management.
	I	Experience Sharing – interaction with successful entrepreneur
	II	Demonstrating Installation of Application Softwares - MS-Office, DTP Softwares, etc.
	III	Practical Revision of Partitioning, OS Installation, Installation of Application Softwares like Office Automation, DTP Softwares, Tools, Utilities etc. Uninstalling Applications / Softwares.
	IV	
13	I	Intro. to CPU - Definition, Architecture, Speed, Types of CPU (XT and AT technologies) 32/64 Bit, Types processor technologies like Clock speed, Bus speed, Chache memory, Threading technologies, core technologies, IRQ & DMA Technologies Brands (Intel/AMD), CPU Series - x86, Pentium Series (4004,8008, 8085, 8086, 8088,80286,80386,80486,P1,P2,P3,P4..), What is "I" Technology, Core series (i3,i5,i7), To explain about PGA and BGA and LGA Model processors, Pins/Sockets
	II	
	III	Intro. to Motherboard - Definition, Architecture, Compatibility with CPU's, Chipsets and Brands,What is Chipset, what is FSB, What is Bus, CPU Sockets, Interface Ports used to connect different Peripherals (SATA/IDE etc.),
	IV	
14	I	M/B Contd…: I/O Ports (PS/2, Serial, Parallel, USB, VGA, HDMI, Audio, Ethernet, etc.) Identifying Expansion Slots (PCI, AGP etc.), Power Form Factor. Possible Problems and Solutions.
	II	
	III	Memory: Intro. to RAM, ROM, Cache Memory ,it is explained at Processor topic , Buffer Memory, Virtual Memory. Theory on RAM, Timeline (EDO, NON-EDO, SD, RD, DDR, DDR2, DDR3), What is Hybrid Memory
	IV	Demonstration and Practical on Identifying, Comparing and Installing RAM, Memory Module Form Factor, etc. Possible Problems and Solutions.
15	I	Hard Disk Drive (HDD): Intro. to HDD, Types of HDD, Functioning of HDD, Interface Types (IDE or PATA, SATA, SCSI, SSD, PATA), Data storage technique (Tracks, Sectors, Cylinders, Cluster MBR, FAT Area, DIR Area, Zero Track,). What is Format, What are the tracks and sectors, How to Convert the data in the Hard disk, What is "Bad Sector", How to check and fix the Bad Sectors, Explained about Software bad sectors and Hardware bad sectors, Possible Problems and Solutions.
	II	

	III	IDE Jumper Settings (Primary/Secondary), (Master/Slave/Cable Select). Demonstration and practical on Installing and Configuring a New HDD.
	IV	
16	I	Optical Drive - Types of Optical Drives - ROM/Writer, Types of Media-(CD/DVD/BluRay), Difference between Red ray technology Drives and Blue Ray Technology Drives. Layers of CD and DVD, Difference between CD and DVD, Explain the difference between writable disk and re-writable disk,
	II	Storage Technology - Reading, Writing & Re Writing data, Drive Interfaces - (IDE/SATA)
	III	Demonstration & Practical on Burning CD/DVD's using multiple Burning Tools,i.e, Nero, NTI, etc Creating, Managing and Burning ISO Images using Tools like: Magic ISO, Power ISO etc. Possible Problems and Solutions.
	IV	
17	I	SMPS - (Switch Mode Power Supply): Introduction What is Electricity, Types of Electricity, What is current, Whatis Power Supply. Explaine Types of Power Supply Technologies , like Regulating Power Supply, Switch Mode Power supply, and what is AC/DC current, Voltage, Measuring Current/Voltage,
	II	Block Diagram and Working Principle of SMPS. Form Factor (AT/ATX), SMPS Connector types.
	III	Demonstrating the Components and Circuits inside the SMPS Unit of different types.
	IV	Practical on Possible Problems and Troubleshooting Solutions.
18	I	Keyboard: Types of Keyboard (Membrane / Mechanical), Keyboard Layout, Explaining Working Principles of Keyboard (Make/Brake Scan Code, Key Matrix)
	II	Keyboard Interfaces (DIN Type, PS/2, USB, Cordless), Keyboard Problems and Troubleshooting
	III	Mouse: Types of Mouse (Ball Mouse, Optical Mouse, Trackball), Explaining Working Principles of Mouse (X,Y Axis in Ball Mouse & DSP, Sensor in Optical Mouse)
	IV	Mouse Interfaces (Serial, PS/2, USB, Cordless), Mouse Problems and Troubleshooting
19	I	Monitor: Types of Monitors (CRT/LCD/LED), Working Principles of each types.
	II	Demonstration and Practical on Monitor Installation, Menu Configuration, Adjusting Monitor Settings, Monitor Power Supply types, Possible Problems and Troubleshooting.
	III	
	IV	Add-On Cards: Uses and Importance of Add-On-Cards. Types of Add-On-Cards (Display/Graphics, Sound, LAN/NIC, TV Tuner etc.), Explained about Diagnastic

		card
20	I	Printer: Types of Printer (Dot Matrix, Inkjet, Laser, Thermal, All-in-One Printers, etc.), Interface Cables, Ports & Connectors. Working Principles of each types.
	II	Demonstration and Practical on Installing a Printer and Configuring Drivers./Possible Printer Problems and Troubleshooting Techniques.
	III &IV	Tower Building Game
21	I	Scanner: Types of Scanner (Handheld, Flatbed, Sheetfed, Portable Scanners). Interface Cables, Ports & Connectors. Working Principles of each types.
	II	Demonstration and Practical on Installation of Scanner, Device Driver Installation, Scanner Settings, Scanning Documents, Photos in different Fomats like JPG, PDF, etc.
	III	UPS (Uninterrupted Power Supply): Types of UPS (Offline/Line Interactive & Online)
	IV	Working Principle of each type of UPS. Connecting, Maintenance and Troubleshooting.
22	I	Computer Virus - What is a Virus? How Virus Attacks a Computer?
	II	Types of Viruses (Boot Sector Virus, Partition Virus, File Virus, Trojans, Etc.)
	III	Malwares, Adwares, Spywares, Phishing Attacks, etc. Prevention and Curing Virus and Spywares. Antivirus, Internet Security Tools, Updates etc.
	IV	Market Survey – theory
23	I to IV	Market survey – collection of information and field visits
24	I& II	Market survey – Report writing, presentation, group discussion & analysis
	II	Trouble Shooting Basics / Trouble shooting file sharing problems
	III	Trouble shooting - RAM
	IV	Trouble shooting power supply / Trouble shooting HDD
25	I	Trouble shooting SMPS fan / Trouble shooting CPU fan
	II	Trouble shooting monitor / mouse / key board
	III	Trouble shooting optical drives / Trouble shooting networking / Trouble shooting operating system
	IV	Midterm evaluation test

26	I	Introduction to Dual Boot / Multi Boot
	II	Introduction to Windows 8.1, Installation
	III	Demonstrating Working on Windows 8.1
	IV	Practical on Installation and Working on Windows 8.1
27	I	Introduction to Windows 10, Installation
	II	Comparison between Windows XP, Win 7, Win 8.1 and Windows 10
	III	Practical on Installation and Working on Windows 10
	IV	Marketing management–4Ps of marketing, managing the customers
28	I	Demonstration on How to Start Windows Using: Safe Mode, Safe Mode Boot options, Last Known Good Configuration, etc.
	II	Practical: Windows Safe Mode, Safe Mode Boot options, Last Known Good Configuration, etc
	III	Demonstrating Windows Diagnostic Tools, System Restore, Creating Restore point, Restore using Restore point, etc.
	IV	Practical on Windows Diagnostic Tools, System Restore, Creating Restore point, Restore using Restore point, etc.
29	I	Demonstration of Windows Recovery using System Factory Defaults/Recovery tools.
	II	Practical on Windows Recovery using System Factory Defaults/Recovery tools.
	III	Demonstration and Practical on Disk Imaging using Ghost Tools like Norton Ghost, Disk Imaging etc. Creating and Restoring Partition Images and Disk images. Using Ghost tools for Disk to Disk and Partition to Disk Ghosting
	IV	
30	I	Demonstration of Creating Recovery Image or Media(CD/DVD/Pen drive) using Tools like Acronis Backup/Recovery and Restoring the Image or Media.
	II	
	III	Practical on Ceating Recovery Image or Media(CD/DVD/Pen drive) using Tools like Acronis Backup/Recovery and Restoring the Image or Media.
	IV	
31	I& II	Demonstration and Practical on Drive Encryption using Bit locker in Windows.
	III	Introduction to Linux Operating System. Difference between Windows and Linux OS. Demonstrating Installation of Linux OS.

	IV	Practical on Installing and Working on Linux OS.
32	I	Introduction to Linux Terminal (CLI - Command Line Interface) and Linux Commands.
	II	Introduction to Linux Administration Basics (Creating and Managing Users & Groups, Files & Directories, Assigning Permissions, Changing Passwords)
	III& IV	Demonstration and Practical on Installing various Packages (Application Softwares) in Linux
33	I	Introduction to Networking
	II	Types of Networks
	III	Basic N/w Hardware
	IV	Crimping RJ45 Connectors
34	I	Intro. To Windows Networking
	II	Demo and Practical on Data Sharing, Printer Sharing.
	III	Demo and Practical on Remote Desktop Connection using Windows RDC.
	IV	Demo and Practical on Virtual Network Computing using Real VNC.
35	I	Intro. To Windows Server 2008 / 2012
	II	Installation of Windows Server and Basic Configuration
	III	Configuring Domain Controller (DC) [Domain Name Server (DNS), Active Directory Services (ADS)], DHCP Server and Creating Domain Users using Active Directory Services.
	IV	Joining Client Computers to the Domain and Login using Domain User Accounts.
36	I	Demonstration and Practical on Creating Shared Folders for each user, Assigning Access Rights and Changing Ownership for Shared Folders using File Server Wizard.
	II	
	III	Demonstration and Practical on Creating User Groups, Assigning Group Policies and Permissions.
	IV	Practical revision on Installing, Configuring Windows Server, DNS, ADS, DHCP Configuration.

37	I	Introduction to Virtualization, Virtualization Concepts and Uses.
	II	Demonstration of Installation and Working on Virtual Box.
	III	Demonstration of Creating and Configuring Virtual Machines (VM's) in Virtual Box.
	IV	Demonstration of Installation Operating Systems (OS) like Windows and Linux in VM's.
38	I& II	Visit to shop of successful entrepreneurs.
	III	Practical on Installation and Working on Virtual Box./Practical on Creating and Configuring Virtual Machines (VM's) in Virtual Box.
	IV	Practical on Installation Operating Systems (OS) like Windows and Linux in VM's.
39	I	Introduction to Internet, Uses of Internet, Working on Internet using various browsers like IE, Chrome, Firefox, Opera, etc. Explaining URL, HTTP, HTTPS, etc. Clearing Browser Cache.
	II	Creating Mail ID's, Send / Receive Mails, Mail Client Configuration using Outlook/Thunderbird, etc.
	III	Internet Configuration using ADSL Router/Broadband Modem. Introduction to Wireless Data Cards and 3G/4G Wi-Fi Dongles. Details about purchasing Software (OS, Application Software's, etc.) and Hardware Components.
	IV	Demonstration & Practical on Internet Downloads (Tools, Software's, Device Drivers, Torrents, etc.) and Getting Online Support.
40	I	Introduction to Network Devices:
	II	ADSL Router, Wi-Fi Router, Wireless Access Point and Repeater, Firewall.
	III	Configuring and securing Wireless Networks and Access Points.
	IV	Providing Wireless Client Access with Secure Key and MAC Filtering.
41	I	Introduction to Linux Networking. Configuring IP Address on Linux Systems.
	II	Demo and Practical on File & Print Sharing in Linux OS, and sharing between Windows & Linux systems using SAMBA services.
	III	Demo and Practical on Remote Desktop Connection in Linux GUI and terminal using SSH service.

	IV	Demo and Practical on Remote Desktop Connection between Windows and Linux systems using RDP and VNC protocol.
42	I	Introduction to Laptop Basic Hardware
	II	OS and Driver Installation for Laptops
	III	Basic Troubleshooting of Laptops
	IV	Creating Backup/OS Recovery Media in branded Laptops and Desktops.
	PE	Written test – Final evaluation test
43	I & II	Up gradation of for 2003 to 2008 server
	III	CC Camera settings and Installation
	IV	Maintenance of records & book keeping - Methodology
44	I	Costing, Pricing, fixed cost, variable cost, breakeven point etc.
	II & III	Banking – Deposits & Advances, Lending Schemes/Government Schemes
	IV	Business Plan/ Project Report preparation
45	I	Human Relations
	II	Launching formalities – Steps in launching of an enterprise, Pitfalls and their control
	III	Final Evaluation Test
	IV	Feedback & valedictory