

HARDWARE AND NETWORKING COURSE CONTENT

Hardware Module and Troubleshooting

Introduction of Computer

Generation of Computers

Classification of Computers

Parts of Computer(Units)

Parts of Motherboard

- Chipset
- Expansion Slot
- Memory Module
- Processor Socket
- Drive Connectors
- BIOS
- CMOS
- Front Panel Connectors
- Port Connectors
- Power Connectors

Assembling Notes

Jumper Settings

Assembling Practical

Practice

DOS Introduction

BIOS Setups

DOS Commands

- File

- Directory
- Attribute Commands
- Practice

Files System (FAT & NTFS)

- Boot Process

XP OS Installation

User Creation

XP Features

- Firewall
- Disk Management
- Add or Remove Program

Driver Finding with Software

- Method of Device Drivers Configuration
- Application Software Installation
- Practice

Dual OS Installtion XP with windows 7/8

OS Upgrade

OS Edition

OS Bits (32 & 64)

Practice

XP 1st & 2nd Repair

Reg edit (D Word Value)

GP Edit

Restore

Disk Clean Up

Disk Defragmentation

OS Management

- SAFE MODE Configuration
- MS-Config
- Temp
- %temp%
- Prefetch
- Virtual Memory
- OS Activation
- Windows 7 & 8 Features
- Windows 7 & 8 Updates
- Recovery (Repair)
- Updates and Patches

E-mail Configuration

- Difference B/W Outlook Express & Outlook
- E-mail Creation
- Mail Backup
- Multiple E-mail Account Configuration
- NewPST Creation
- Set PWD for the PST
- Change Sync. Time duration
- Add Contact & Group
- Rule Creation

NT Backup

OS Backup (Norton Ghost)

HirenBoot options

Virus

Antivirus

Practice

Test – Hardware Module and Troubleshooting

Network Module and Trouble shooting

Network Introduction

Types of Network

How do we Network ?

Diff OS Family

Workgroup and Domain Network

Types of Topology

Types of Media

- NIC
- Hub
- Switch
- Router
- OSI Model
- Cables

Cable Crimping Methods

Protocols

IP Address

Crimping Practice

XP with XP – Workgroup NW Configuration

IP Configuration

Files and Folder Sharing & Permission

Workgroup User Management

- User Creation
- User Level files access permission
- Practice

Remote Desktop

Remote Assistance

Net Meeting

Offline File Sharing

Practice

2003 Server OS

- ADS Configuration
- DHCP Configuration
- Client Configuration
- User Management
- Files and Folder Sharing
- Profiles
- Practice

User and Folder Level Permission

- User or Group Configuration
- Sharing Permission
- Logon locally
- Complicity Password

Profiles

- Default Profile

- Roaming Profile
- NT Backup
- Practice

Terminal Server

IIS Server

FTP Server Configuration

NT Backup & Restore

2008 Server OS

- ADS Configuration
- DHCP Configuration
- Client Configuration

User Management

Files and Folder Sharing

Profiles

Practice

Group Policy

- Changing Default Password Policy
- Enabling Password Lock out Policy
- Complicity Policy (Password Length)
- Changing Allow Logon Locally Policy

Test – Network Module

2008 & 2012 System Administration and Troubleshooting

Introduction of Windows Server 2008 R2 & 2012

Features and Editions

Logical Structure of Server (Domain, Tree, Forest)

2008 & 2012 OS Installation

ADS and DNS Installation

Creating User Accounts

Client Configuration

User Configuration

- Logon Hours
- Log on to
- Password Reset
- Password Unlock

Group Configuration

- Types of Groups
- Difference between Local, Global and Universal Groups

User Management

FAT & NTFS File System

Sharing Level Permission

Security Level Permission

Offline File Sharing

Local Profile

Roaming Profile

Home Folder

Disk Quota

Shadow Copy

Group Policy

- OU Creation
- OU Level Policy

- Domain Level Policy
- Changing Default Password Policy
- Enabling Password Lock out policy / Complicity Policy
- Changing Allow Logon Locally Policy
- Delegating Control
- Software Deployment Policy
- Script Policy
- Wall Paper Policy

Configuring ADC

Configuring Child Domain

Configuring Tree Root Domain

Configuring RODC

FSMO Role Transfer

FSMO Role Seizing

Forest Trust Configuration

DHCP

- Installing DHCP Service
- Creating Scope
- Creating IP Reservation
- Scope Backup and Restore

DNS

- Installing DNS Service
- Creating AD Integrated Zone
- Creating Standard Forward Lookup Zone
- Creating Standard Reverse Lookup Zone

IIS

- Installing IIS Service
- Website Creation
- IIS Configuration (Website Hosting)

FTP

- Installing FTP Service
- Creating do not Isolate Users FTP Sites
- Creating Isolate users FTP Site

RARS

- Install RARS Configuration
- RARS Verification

RDP

- Terminal Server Configuration
- RDP Server Configuration

2003 & 2008 R2 Migration

RAID Simulation

Q & A

Practice

Chip level Training Course Syllabus in Chennai

Week 1: Introductions – Basic Electronics Parts, Laptop Servicing Tools, Testing Equipments

Week 2: Laptop Parts View

Week 3: Laptop Complete Disassembling & Assembling (Any 3 Models)

Week 4: Laptop Complete Disassembling & Assembling (Any 3 Models)

Week 5: Laptop Complete Disassembling & Assembling (Any 3 Models)

Week 6: Trouble Shooting Hardwares

Week 7: OS & Softwares Installation

Week 8: Driver Installation and Troubleshooting

Week 9: Laptop Spare parts Purchase Address details

Week 10: Practice

Week 1: Introductions – Basic Electronics Parts, Laptop Servicing Tools, Testing Equipments

A. Introductions

- 1. What is laptop?
- 2. Types of Laptop Service
- 3. Difference between laptop and desktop
- 4. LATOP MANUFACTURING COMPANIES-Acer /Apple /Compaq /Dell -etc
- 5. How to buy a laptop?
- 6. Operating System review

B. Laptop Service Tools

- 1. ScrewDriver Kit
- 2. Laptop Casing Opener
- 3. Nose Pliers
- 4. Cutter

C. Laptop Chip Level Tools

- 1. Micro Soldering Iron
- 2. Tip Soldering Iron
- 3. Hot Air Blower
- 4. Magnifying Lenz with Lamp

TESTING EQUIPMENTS

- Analog & Digital MultiMate
- RCL Meter

- Universal AC Adapter

Resistor

- 1. Types of Resistor
- 2. Colour Ranges
- 3. How to check the Resistor?

Capacitor

- 1. Types of Capacitor
- 2. How to check the Capacitor?

Integrated Circuit(IC)

- 1. Types of IC
- 2. How to check the IC?

Inductor

- 1. Types of Inductor
- 2. How to check the Inductor?

Diode

- 1. Types of Diode
- 2. How to check the Diode?

Transistor

- 1. Types of Transistor
- 2. How to check the Transistor?

Transformer

- 1. Types of Transformer
- 2. How to check the Transformer?

Multimeters

- 1. Types of Multimeters

- 2. How to check the Multimeters?

Week 2: Laptop Parts View

Laptop Parts View

- 1.Laptop
- 2.Batteries
- 3.Speakers
- 4.Hard Disks
- 5.Network Cards
- 6.DVD Drives
- 7.Fans
- 8.Processors
- 9.Adaptors
- 10.Mother boards
- 11.Keyboards
- 12.Screens
- 13.RAM
- 14.Touchpads
- 15.Web Cameras
- 16.Wi-fi card
- 17.Display

RAM & TYPES OF RAM:

- RAM [STATIC RAM]
- DRAM [DYNAMIC RAM]
- Types of Dynamic RAM

Laptops RAM slot review:

- SODIMM [Small Outline Dual Inline Memory Module]
- Micro DIMM [Micro Dual Inline Memory Module]
- RAM comparison of DDR 1 /DDR2 & DDR3.
- DDR1 & DDR2 RAM BUS SPEED list
- DDR3 memory speed list
- RAM working voltage list
- RAM manufacturing companies

Hard disk & TYPES OF Hard disk:

- What is hard disk?
- Types of hard disk
- IDE Hard disk
- SATA Hard disk
- External Hard disk
- Hard disk manufacturing companies
- SATA to USB convertor & IDE to USB convertor
- Hard disk inside components & its function
- Failure symptoms for hard disk
- Hard disk maintenance guide

PCMCIA CARD & DVD DRIVE

- Wireless Card
- Usb Card [Single/Double/Four]
- Network Card (LAN)
- Dvd
- Serial Port
- Card Reader

- Sound Card

Optical drive:

Internal drive (laptop inside using this drives) & External drive

- CD ROM
- CD r/w
- DVD ROM
- Compo drive
- DVD r/w
- HD DVD r/w
- Blu – ray drive
- Various type of DVD drive interfaces

External CD ROM & other devices:

External blue – ray drive

Notebook slim CD to desktop IDE CD converter/CD/DVD writing software/DVD viewing software

SPEAKER:

- Internal speakers
- External Speaker

WI-FI CARDS review:

- WI-FI card parts /How to Connect the Wi-Fi to Internet?

What Is Laptop Motherboard?

Laptop Motherboard Functional Block Diagram & Its Function

Acer Laptop Motherboard Functional Block Diagram

Motherboard Brands List:

- Compaq Motherboard
- HP Motherboard

- Acer Motherboard
- Dell Motherboard
- IBM Lenovo Motherboard
- Sony Motherboard
- Toshiba Motherboard
- Apple Motherboard
- Fujitsu Motherboard
- Samsung Motherboard

Week 3: Laptop Complete Disassembling & Assembling (Any 3 Models)

Laptop Complete Disassembling & Assembling

- Compaq Laptop
- HP Laptop
- Acer Laptop

Week 4: Laptop Complete Disassembling & Assembling (Any 3 Models)

Laptop Complete Disassembling & Assembling

- Dell Laptop
- IBM Lenovo Laptop
- Sony Laptop

Week 5: Laptop Complete Disassembling & Assembling (Any 3 Models)

Laptop Complete Disassembling & Assembling

- Toshiba Laptop
- Hasee Laptop
- Samsung Laptop

Week 6: Trouble Shooting Hardwares

Trouble Shooting Hardwares (Laptop screens, Panels & etc)

Week 7: OS & Softwares Installation

- OS Introduction
- Win XP os installation
- Win 7, Win 8,win10 os installation

Week 8: Driver Installation and Troubleshooting

Drivers Installation & Updates

- Batteries
- Disk Drives
- Display Adapters
- USB
- Network Controllers
- Processors
- Monitors
- Keyboards
- OS Maintenance : Temp file deletion, virtual memory ,Disk cleanup /Defragment

Week 9: Laptop Spare parts Purchase Address details

Laptop Spare parts Purchase Address details

Week 10: Practice

Reference: <http://www.traininginchennai.co.in/hardware-networking-training-in-chennai/>