

HARDWARE & NETWORKING (6 WEEKS)

1. COMPUTER HARDWARE

Introduction to basic electronics, subassembly of PC

Subassembly of Motherboard, types of memory, familiarization with I/O cards, ports, connectors & cable and their identification.

Build up of PC, Booting process, setting up of BIOS, CMOS errors, disk management

Installation of Operating System, Dual booting systems, Hardware Device Drivers & Application Software, System Maintenance Tools, Important commands, troubleshooting of PC.

Upgrading of PC, Working of SMPS, troubleshooting related to it.

2. NETWORKING

1. Communication over the network
2. Application layer functionality and protocols
3. OSI Transport Layer
4. OSI Network Layer
5. Addressing the Network – IPv4
6. Data Link Layer
7. OSI Physical Layer
8. Ethernet
9. Planning and Cabling Networks
10. Configuring and Testing Your Network
11. Introduction to Routing and Packet Forwarding
12. Static Routing
13. Introduction to Dynamic Routing Protocols
14. Distance Vector Routing Protocols
15. RIP Version 1
16. VLSM and CIDR
17. RIPv2
18. The Routing Table : A Closer Look
19. EIGRP
20. Link-State Routing Protocols
21. OSPF
22. LAN Design
23. Basic Switch Concepts and Configuration
24. VLANs
25. VLAN Trunking Protocol
26. Spanning Tree Protocol
27. Inter-VLAN Routing

28. Introduction to WAN
29. Basic Wireless Concepts and Configuration
30. Point to Point Protocol
31. Frame Relay
32. Network Security
33. ACLs
34. Teleworker Services
35. IP Addressing Services
36. Network Troubleshooting

3. Windows 2008 Administration

Windows 2008 Administration - Introduction

- Microsoft Windows Operating System Family
- Windows 2008 New Features
- Windows 2008 User Interface
- Installation of Windows 2008 Server & its services

Domain name Server (DNS)

- Installing DNS
- Configuring DNS
- Maintaining and troubleshooting DNS
- Configuring Advanced DNS Server parameters
- Configuring DHCP to Support DNS

DHCP

- Networking with TCP/IP
- TCP/IP into the windows Model
- IP Addressing
- Understanding DHCP
- DHCP Communication
- Name Registration and Resolution

Active Directory Services

- Installing Active Directory
- The Active Directory Installing Process
- Examining the Default Structure of Active Directory
- Performing Post Active Directory Installation Task
- Troubleshooting the Installing of Active Directory
- Removing Active Directory

User management

- Understanding User Accounts and Groups
- Assigning Rights on User & Group
- Authentication, Authorization, and Auditing
- Troubleshooting Domain User Accounts and Groups
- Managing user profiles
- Setting up disk Quotas
- Group Policies management

Microsoft Internet Information Server

- Introduction To IIS
- HTTP vs.HTML
- Directory structures
- Authentication
- Administration to IIS

Understanding Windows Registry

- Importing & Exporting Registry
- Changing User & Computer Configuration
- Changing Device Options & Settings