

HARDWARE & NETWORKING

COURSE DURATION 30 HOURS

ALLOCATION OF TOTAL HOURS FOR EACH CHAPTER:

SI No	Chapter	Theory in Hours	Practical in Hours
1.	Introduction about computer	1	1
2.	Basic Networking concepts	1	2
3.	Introduction to various networking devices	2	2
4.	Inside the PC	4	2
5.	Network basic and configuration	4	4
6.	Introduction to servers and network security	4	4
		15	15

DETAILED SYLLABUS

1. Introduction about Computer
 - 1.1. Basics of computer
 - 1.2. Organization of computer.
 - 1.3. Software and hardware.
 - 1.4. Input/output devices.
2. Basic networking concepts,
 - 2.1 Network topologies:
 - 2.1.1 LAN, WAN, MAN, PAN, CAN.
 - 2.2 Networking Model
 - 2.2.1. The OSI model
 - 2.2.2. TCP/ IP Model
 - 2.3 Network adapters.
 - 2.4 Introducing protocols.
 - 2.5 Cabling and troubleshooting.
3. Introduction to various networking devices:
 - 3.1. Routers.
 - 3.2. Switches.
 - 3.3. Modems.
 - 3.4. Hubs etc.
 - 3.5. Wired and Wireless technology.

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4. Network basic and configuration:
 - 4.1. Setting IP addresses,
 - 4.2. Sharing files and folders.
 - 4.3. Network troubleshooting.
 - 4.4. PING test, ipconfig etc.
5. Introduction to servers and network security
 - 5.1. Types of servers:
 - 5.1.1. Files servers,
 - 5.1.2. Email Servers,
 - 5.1.3. Proxy servers etc.
 - 6.2 .Basics of Internet and Intranet:
 - 6.3 .Types of Internet connections:
 - 6.3.1 Dialup, Broadband, Leased Line, Wi-Fi, Wi-Max, 2G, 3G, 4G, WWW, E-mails, Search Engines, Social Networking.
 - 6.3.2 Cloud application.
 - 6.3.3 Audio-video Conferencing.
 - 6.3.4 Voice over Internet Protocol (VOIP).
 - 6.4. Recovery and backup.
 - 6.5. Essential security measures.