LEHub I.T. Academy Solutions

I.T. ACADEMY

ISO 9001 2015 CERTIFIED

Govt. Registered Institute

(Diploma in Computer Hardware & Networking)

Semester -1

Computer Hardware (A+)

1. Computer Components Identification
2. Assemble and Disassemble Computer Components
3. Components in Portable Computers
4. Devices Installation and Configuration
5. Characteristics of cabling and their Connectors
6. Common IDE, SCSI and peripheral devices
7. Optimize PC operations optimization
8. Determine the Issues that must be considered when upgrading a PC
9. Popular CPU chips
10. Types of memory (RAM)
11. Types of motherboards and their components
12. Printer technologies, interface and options/upgrades
13. Troubleshoot common printer problem
14. Operating system fundamentals OS installation
15. Networking capabilities of windows
16. Basic internet protocols and terminologies
17. Procedures for establishing internet connectivity

O.S (Operating Systems)

1. Overview
2. Introduction
3. Software Execution
4. History and Hardware
5. OS Structures
6. Process Management
7. Processes
8. Scheduling
9. Inter process communication
10. Synchronization and deadlocks
11. Memory Management
12. Memory allocation
13. Paging and segmentation
14. Virtual memory
15. File System Management
16. File system interface

17. File system implementation
18. IO Management
19. IO systems
20. Disk management
21. Security.

Semester -2

Networking (N+)

1. An Introduction to Networking
2. Describe the purpose and functions of various Network devices.
3. Differentiate between LAN/CAN/MAN/WAN operation and features.
4. Explain Network Topologies
5. Explain Network Protocols
6. Networking Standards and the OSI Model
7. Transmission Basics and Networking Media
8. Introduction to TCP/IP Protocols
9. IPv4 addressing Scheme
10. Private and Public Ip addresses for IPv4
11. addressing Ipv4 addressing scheme using Subnetting, VLSM and Summarization.
12. IPv6 addressing Scheme
13. Topologies and Ethernet Standards
14. Network Hardware
15. WANs and Remote Connectivity
16. Setup and configure windows networking on a client / desktop
17. Basics of client-side virtualization
18. Wireless Networking
19. Network Operating Systems
20. In-Depth TCP/IP Networking
21. Voice and Video Over IP
22. Network Security
23. Troubleshooting Network Problems
24. Ensuring Integrity and Availability
25. Network Management

CCNA - Cisco Certified Network Associate

1. **Describe the purpose and functions of various network devices**
2. **Technology and media access control method for Ethernet network**
3. **Identify basic switching concepts and the operation of Cisco switches.**
4. **Initial switch configuration including remote access management**
5. **Configure and verify VLANs**
6. **IPv4 addressing Scheme**
7. **Private and Public Ip addresses for IPv4**
8. **addressing Ipv4 addressing scheme using Subnetting, VLSM and Summarization.**
9. **IPv6 addressing Scheme**
10. **Technological requirements for running IPv6 in conjunction with IPv4 such as dual stack**
11. **Basic routing concepts**
12. **Boot process of Cisco IOS routers**
13. **Utilization of the CLI to set basic Router configuration**
14. **Routing configuration for a static or default route**
15. **Configuration and verify OSPF (single area)**
16. **Configuration and verify EIGRP (single AS)**
17. **Configure and verify DHCP, ACL, NAT and PAT (IOS Router)**
18. **Identify and correct common network problems**
19. **Utilize net flow data**
20. **Configuration and verify a PPP connection between cisco routers**
21. **Configuration and verify a basic WAN serial connection**
22. **Configuration and verify Frame Relay on Cisco routers**
23. **Troubleshooting & Monitoring.**

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