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Days	CCNA COURSE CONTENT – HB SERVICES
1	INTRODUCTION TO NETWORKING Number Systems a) Binary b) Decimal c) Hexa Decimal IPV4 ADDRESSING And Its Classes a) Subnet Mask b) Reservation Of IPV4 address
2	sub netting a) FLSM i) Based on Subnets ii) Based On Host
3	Sub netting b) VLSM
4	Introduction to Network Devices a) Repeater b) Hub c) Bridge d) Switch e) Router Introduction to types of Cable a) Twisted Pair (Crimping) b) Co-axial c) Fiber optical

5	OSI Model TCP/IP or DOD Model ✓ Transmission Control Protocol (TCP) ✓ Internet Protocol (IP) ✓ User Datagram Protocol (UDP) ✓ File Transfer Protocol (FTP) ✓ Trivial File Transfer Protocol (TFTP) ✓ Simple Mail Transfer Protocol (SMTP) ✓ Hyper Text Transfer Protocol (HTTP) ✓ Simple Network Management Protocol (SNMP) ✓ Hyper Text Transfer Protocol Secure (HTTPS)
6	CLASSES OF IPv4 PACKET FILTERING • ICMP • Internet Control Message Protocol (ICMP) • Address Resolution Protocol (ARP) • Proxy ARP • Reverse Address Resolution Protocol (RARP) • Gratuitous Address Resolution Protocol (GARP) • Troubleshooting commandS
7	ROUTER • Router modes • Configuring routers with password • Telnet • Router memory components
8	CISCO IOS • Booting process • TFTP server • CDP
9	ROUTING • Types of routing • Configuring Static Routing • Troubleshooting
10	Task on Above Scenario
11	Configuring Static routing with FLSM and VLSM
12	DYNAMIC ROUTING • RIP(Distance Vector Algorithm) a. Debugging RIP b. Analysis of RIP
13	RIPv2 • Configuration • Troubleshooting • Route summarization

14	EIGRP(Advanced Distance Vector Algorithm) • Configuration • EIGRP messages a. Hello packets b. Acknowledgement packet c. Update packet d. Query packets e. Reply packets f. Request packets
15	EIGRP neighbour discovery • EIGRP neighbour table • EIGRP topology table • Troubleshooting with metric weightage
16	OSPF (Link-state Algorithm) • Configuration • OSPF packet types • OSPF in point to point network • Troubleshooting
17	OSPF • Configuring OSPF in broadcast multi-access • Understanding DR, BDR & DR other • Troubleshooting
18	OSPF • Configuring OSPF in non-broadcast multi-access • OSPF in multi-area
19	REDISTRIBUTIONS • Multiple protocols • Multiple autonomous system(EIGRP)
20	NAT • Static NAT • Dynamic NAT • NAT overload (PAT)
21	ACCESS CONTROL LIST • Standard ACL • Extended ACL ACL Rule 1 – Use only one ACL per interface per direction. ACL Rule 2 – The lines are processed top-down. ACL Rule 3 – There is an implicit “deny all” at the bottom of every ACL. ACL Rule 4 – The router can’t filter self-generated traffic. ACL Rule 5 – You can’t edit a live ACL. ACL Rule 6 – Disable the ACL on the interface. ACL Rule 7 – You can reuse the same ACL. ACL Rule 8 – Keep them short! ACL Rule 9 – Put your ACL as close to the source as possible.

22	DHCP Configuration DHCP rely agent Configuration DNS – Theory
23	WAN Technologies • HDLC • PPP Configuration a) PAP b) CHAP
24	WAN Technologies Frame relay Configuration
25	MPLS Configuration VPN Tunnel Configuration
26	SWITCHING • Collision & Broadcast domain • Switching frames • VLAN – Configuration • End to End VLAN Configuration
27	Inter VLAN Routing Configuration a) Generic IVR
28	Configuring and verifying trunk links • DTP • Trunking • IEEE 802.1Q, Native VLAN • ISL • Inter-VLAN routing
29	STP • STP blocking state • STP listening state • STP learning state • STP forwarding state BPDU STP Bridge id STP bridge election STP root port election STP Designated port election Port cost and path cost
30	RSTP PVSTP
31	Ether-channel Configuration HSRP – Configuration
32	IPv6 Routing Types