



KARPAGAM ACADEMY OF HIGHER EDUCATION

(Deemed to be University)

(Established Under Section 3 of UGC Act 1956)

Coimbatore-641 021

(For the candidates admitted from 2019 onwards)

DEPARTMENT OF COMPUTER SCIENCE, CA & IT

SUBJECT CODE: 19CSP211

SEMESTER : II

SUBJECT : ROUTER CONFIGURATION

CLASS : I M.Sc. CS

Course Objectives

- To understand about subnets using IP classes
- To understand the key features and functions of TCP
- To understand how basic routing works including the use of routing protocols.
- To understand about DNS and its applications
- To understand the concepts of Remote Login and VPN

Course Outcomes(COs)

At the completion of the course, students will:

1. Have the ability to analyze and differentiate networking protocols used in TCP/IP protocol suite.
 2. Understand IP Addressing Fundamentals
 3. Understand IPv4 forwarding and routing.
 4. Learn about host name resolution and the Domain Name System (DNS).
 5. Learn about services and operations of DHCP Servers and Domain Name Servers
 6. To create major applications using the key TCP/IP protocols
 7. To compare and contrast IP routing protocols
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1. Simple router configuration.
 2. Access and utilize the router to set basic parameters.
 3. Connect configure and verify operation status of a device interface.
 4. Implement static and dynamic addressing services for hosts in a LAN environment.
 5. Identify and correct common problems associated with IP addressing and host configurations.
 6. Configure verify and troubleshoot RIPv2.
 7. Perform and verify routing configuration tasks for a static or default route given.
 8. Configure verify and troubleshoot NAT operation on a router.
 9. Configure and verify a PPP connection between routers.

SUGGESTED READINGS

1. Jason Edelman, Scott Lowe (2018), Network Programmability and Automation, O'Reilly
2. Jeff Doyle, Jennifer DeHaven Carroll (2012), Routing TCP/IP, Volume 1 (2nd Edition), Cisco Press
3. Behrouz, A. Forouzan. (2009). TCP/IP Protocol Suite. 3rd edition. Tata McGraw Hill Publication. New Delhi:
(Page Nos: 2-5 6-38 69-74 84-95 102-121 160-188 191-1-201 221-232 238-241 256-279 299-304 386-430 441-444 457-464 471-488 519-542 561-566 575-576 621-632 637-644 680-682)
4. Andrews, S. Tanenbaum. (2003). Computer Networks. 4th edition.:Prentice Hall of India Private Ltd. New Delhi.
5. Buck Graham. (2007). TCP/IP Addressing. 2nd edition. Harcount India Private Limited. New Delhi
6. Douglas, E. Comer. (2000). Computer Networks and Internets. 4th edition. Pearson Education. New Delhi.
7. William Stallings. (2007). Data and Communication Network. 8th edition. Tata McGraw Hill. New Delhi

WEB SITES

- en.wikipedia.org/wiki/Internet_protocol_suite
- http://docwiki.cisco.com/wiki/Introduction_to_WAN_Technologies
- www.yale.edu/pclt/COMM/TCPIP.HTM
- www.w3schools.com/tcpip/default.asp

