

MCA DEGREE EXAMINATIONS: MAY / JUNE 2013

Fifth Semester

MASTER OF COMPUTER APPLICATIONS

MCA526: TCP / IP Protocol Suite

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

1. Define CSMA/CD.
2. List down the various interconnecting devices used between heterogeneous networks.
3. The subnet mask for a Class C network is 255.255.255.240. How many sub networks are available?
4. What do you mean Private IP address?
5. What is well known port? Give an example.
6. Write the uses of urgent pointer in TCP header.
7. What is resolver in DNS?
8. Compare BOOTP and DHCP in terms of retrieving IP addresses.
9. What is the role of SMI in SNMP?
10. What is web server? Give an example.

PART B (5 x 16 = 80 Marks)

11. a) Discuss about Classful IP addressing with suitable examples.

(OR)

- b) (i) Explain the various responsibilities of all layers in OSI model. (8)
(ii) Describe the LAN and WAN connecting devices. (8)

12. a) Demonstrate how the packets are divided in fragmentation? And Explain the various fields of IP v4 header in detail.

(OR)

- b) (i) What are the error reporting messages provided by ICMP? (8)
(ii) How IP addresses are mapped into Ethernet address using ARP? Explain. (8)

13. a) Discuss in detail about UDP frame format and operations of UDP in detail.

(OR)

b) (i) Explain the various fields of TCP header in detail. (8)

(ii) What do you mean congestion control? Explain the slow start algorithm in detail. (8)

14. a) What is the need for DNS? Explain the terms Name Space and DNS in the Internet.

(OR)

b) Discuss the following briefly (8)

(i) DHCP

(ii) Telnet (8)

15. a) Explain in detail about HTTP and its request and response message.

(OR)

b) (i) What are the different phases of Mail transfer in SMTP protocol? Explain. (8)

(ii) How the connection and communication take places in FTP? (8)
