



Register Number:.....

MCA DEGREE EXAMINATIONS: NOV/DEC 2014

(Regulation 2009)

Fourth 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 = 10 Marks)

1. Why was the OSI model developed?
2. Identify the need for network layer in OSI model.
3. Find the class of the following IP address:
10000000 00001011 00000011 00011111
4. Distinguish subnetting and supernetting.
5. Define the term masking.
6. What is piggybacking?
7. State the role of BOOTP and DHCP.
8. "Options are features that enhance the TELNET process" – Justify.
9. What is post office protocol?
10. Mention the types of file transfer.

PART B (5 x 16 = 80 Marks)

11. a) (i) With neat diagram, explain the relationship of layers and address in TCP/IP. (8)
(ii) How do guided media differ from unguided media? Explain. (8)
- (OR)**
- b) (i) Discuss the different connecting devices used in the network. (10)
(ii) Why loopback address is required? What are the IP addresses used for private networks? (6)

12. a) Elaborate the broad categories of ICMP message with diagram. (8)
- (OR)**
- b) (i) “RARP request packets are broadcast; the RARP reply packets are unicast” – (8)
Justify your answer with neat diagram.
- (ii) Summarize the steps needed to perform checksum calculation at the sender and receiver. Give example. (8)
13. a) (i) How do you control congestion in network? (8)
- (ii) Compare TCP header and UDP header. List the fields in the TCP header that are missing from UDP header. Give the reason for their absence. (8)
- (OR)**
- b) Illustrate the need of sliding window protocol in TCP with neat diagram.
14. a) (i) How does DHCP enhances BOOTP? Show the content of DHCP packet. (12)
- (ii) Write short note on Generic domain. (4)
- (OR)**
- b) (i) Briefly explain the types of DNS messages. (8)
- (ii) “Rlogin allows the server to send commands to the client and vice versa” - (8)
Explain.
15. a) (i) List out the types of HTTP messages and discuss any one message in detail. (10)
- (ii) What are the types of SNMP messages? Draw the message format of SNMP. (6)
- (OR)**
- b) (i) Outline the process of transferring a mail message. (12)
- (ii) Bring out the role of FTP connections. (4)
