

2/3/16 [A]

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Question Paper Code : 27414

5 Year M.Sc. DEGREE EXAMINATION, MAY/JUNE 2016

Elective

Software Engineering

XCS 483/10677 SWE 51 – NETWORK PROTOCOLS

(Common to 5 Year M.Sc. Computer Technology and M.Sc. Information Technology)

(Regulations 2003/2010)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions.

PART – A (10 × 2 = 20 Marks)

1. Draw IP Datagram header format.
2. What do you mean by congestion ?
3. What is multicast tree ?
4. Define Bootstrapping.
5. What is the purpose of Domain Name System ?
6. Give the advantages of using FTP ?
7. What is MIME ?
8. What is a URL and what are its components ?
9. Define Firewall. Write down its types.
10. Mention the Services of TCP/IP.

PART – B (5 × 16 = 80 Marks)

11. (a) Explain the IP routing algorithm and how IP addresses make the routing process easy. **(16)**

OR

- (b) Discuss the congestion control mechanism and the methods for avoiding ambiguous acknowledgements in TCP. **(16)**

12. (a) Explain in detail BOOTP and DHCP configuration with neat sketch. **(16)**

OR

- (b) (i) Draw the architecture of Mobile IP. **(6)**
(ii) Explain in detail, the various techniques used in Internet Multicasting. **(10)**

13. (a) (i) Explain the importance of DNS on a computer Network in detail. **(8)**
(ii) Explain the TELNET operation modes in detail. **(8)**

OR

- (b) (i) Explain the flow control and error control mechanisms followed in data transfer using TFTP protocol. **(8)**
(ii) How does the NFS communication between client and server use the Remote Procedure Call ? **(8)**

14. (a) With state diagram explain IMAP client/server architecture.

OR

- (b) (i) Write short note on MIME. **(8)**
(ii) Write about the role of IMAP in electronic mail services. **(8)**

15. (a) Discuss the necessity of Security in the Internet. How it is achieved ? **(16)**

OR

- (b) What are the challenges to be faced in IP in the future ? Give some methods to prevent cyber crimes. **(16)**