Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐☐☐

Question Paper Code : 75562

5 Years M.Sc. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2013.

Elective

Computer Technology

XCS 483 — NETWORK PROTOCOLS

(Common to 5 Year M.Sc. Software Engineering/M.Sc. Information Technology)

(Regulation 2003)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1.   What is ICMP? Give its functions.

2.   How can a router avoid global synchronization?

3.   What is the significance of TTL?

4.   Draw the message format of DHCP.

5.   Differentiate recursive resolution and iterative resolution in terms of domain name resolution.

6.   Differentiate NFS and TFTP.

7.   What is URL? Give an example.

8.   What are the five basic message types used by RTCP?

9.   What are the functions of SSL?

10. What leads to the revising of protocols?

PART B — (5 × 16 = 80 marks)

11. (a)   Write short notes on the below :

     (i)   ICMP message format.   (8)

     (ii)   Destination unreachable message format.   (8)

                              Or

(b) Explain the following :

    (i) Exterior Gateway Protocol. (6)

    (ii) Characteristics of BGP. (10)

12. (a) (i) What are the general characteristics of IP multicasting? Explain. (8)

    (ii) Describe the agent registration in detail. Also draw the registration message format and explain. (8)

Or

(b) What is BOOTP? Draw the message format and explain in detail. (16)

13. (a) What is DNS? Explain its role. (16)

Or

(b) Explain the following :

    (i) Rlogin (8)

    (ii) FTP. (8)

14. (a) (i) Explain SMTP in detail. (8)

    (ii) Explain MIME in detail. (8)

Or

(b) What is HTTP? Explain in detail. (16)

15. (a) (i) Describe the features of IPv6 in detail. (8)

    (ii) What are the three categories in which a destination address on a datagram falls? (4)

    (iii) Draw the format of IPv6 base header. (4)

Or

(b) (i) Explain the different SNMP operations in detail. (6)

    (ii) Explain IP Security and IPSec tunneling in detail. Also draw the IPSec authentication header format. (10)

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