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322651(22)

B. E. (Sixth Semester) Examination, April-May 2021

(New Scheme)

(CSE Branch)

COMPUTER NETWORKS

Time Allowed : Three hours

Maximum Marks : 80

Minimum Pass Marks : 28

Note : Attempt all questions. Part (a) is compulsory carry 2 marks. Attempt any *two* from part (b), (c) and (d) each of 7 marks.

Unit-I

1. (a) What is Arpanet?   2

   (b) Define network topology. Draw and explain different types of network topologies and their characteristics.   7

(c) Explain layered architecture of OSI Model.   7

(d) What do you understand by guided and unguided media?   7

Unit-II

2. (a) What is ARP?   2

(b) Explain MAC Addresses.   7

(c) What is HDLC Protocol? Explain the features of HDLC.   7

(d) Write short notes on :   7
    (i)   ALOHA
    (ii) CSMA

Unit-III

3. (a) Explain ICMP Message format.   2

(b) Explain distance vector routing with suitable diagram.   7

(c) Write the difference between IPV_4 and IPV_6.   7

(d) Write short notes on :   7
    (i)   BGP
    (ii) Mobile IP

Unit-IV

4. (a) What is Multiplexing?   2

(b) Write the differences between TCP and UDP.   7

(c) Explain congestion control in Transport layer.   7

(d) Explain the Integrated and Differentiated Services, Intserv and Diffserv.   7

Unit-V

5. (a) Explain SMTP protocol.   2

(b) Exlplain DNS in brief.   7

(c) What do you mean by MIME? Specify the detail of different MIME header along their details.   7

(d) Write short notes on :   7
    (i)   Firewalls
    (ii) Gateway