53 (EC 604) CMNW

2018

COMMUNICATION NETWORK

Paper : EC 604 (Back)

Full Marks : 100

Time : Three hours

The figures in the margin indicate full marks for the questions.

*Answer **any five** questions.*

1. *(a)* Discuss various closed loop congestion control techniques. 10

   (b) Differentiate between packet-switching and circuit-switching techniques. 6

   (c) Explain the use and need for Domain Name System (DNS). 4

2. *(a)* Explain about the architecture of ATM networks. Write about its various layers. 5+5=10

   (b) Elaborate how does remote log-in take place in TELNET. 10

3. *(a)* Discuss the character count framing method used by data link layer. 5

(b) Elaborate the working of Ethernet (bus topology). 5

(c) Describe the IPv4 datagram header format. 10

4. *(a)* Draw the TCP/IP and OSI Reference model showing various protocols of respective layers. 6

(b) Find the first address, last address and size of the following block: 200.17.21.128/27. 6

(c) Explain with neat diagram, connection Establishment Process by TCP using three-way handshaking. 8

5. *(a)* A host is sending 100 datagrams to another host. If the identification number of the first datagram is 1024, what is the identification number of the last? 3

(b) Discuss an electronic mail scheme. 10

(c) Differentiate between Recursive Resolution and Iterative Resolution. 7

6. *(a)* Write about HTTP and www. 6

(b) Draw the inverse domain of 123.56.77.32. What is the outcome? 3

(c) Describe the responsibilities of the physical layer of OSI Reference model. 5

(d) Write the important features of FDDI. 6

7. *(a)* Differentiate and explain: 6×3=18

(i) TCP and IP, *(ii)* Hub, Switch and Repeater, *(iii)* Unicasting, Multicasting and Broadcasting.

(b) Calculate the HLEN in IPv4 value if the total length is 1200 bytes, 1176 of which is data from the upper layer. 2

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