53 (EC 604) CMNW

2019

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) Describe the different open-loop congestion control techniques.   8

   (b) What are the various responsibilities of data link layer.   6

   (c) Describe the architecture of World Wide Web (WWW).   6

2. (a) What is ATM switching ? Describe the functions of different layers of ATM networks.   10

(b) Describe remote login using TELNET. 10

3. (a) Explain the connection Let-up phase of TCP with three-way handshaking. 6

(b) Draw a neat sketch of IPv4 datagram header format. 4

(c) Differentiate between :

(i) TCP and IP 5+5=10

(ii) Hub and switch.

4. (a) What is Domain Name System (DNS)? What is its need? What are the various types of DNS? 3+2+2=7

(b) Describe a general architecture of Electronic Mail. What is the role of SMTP? 7+3=10

(c) Cite the functionalities of repeaters. 3

5. (a) Find the first address, last address and block size of the following block :

123.56.77.32/29 6

(b) What is DNS resolution? Describe Recursive Resolution and Iterative Resolution. 2+8=10

(c) Differentiate between IPv4 and IPv6. 4

6. (a) What are the variants of Ethernet? 5

(b) Explain HTML, URL and HTTP in context of WWW. 9

(c) Describe a Token Ring network. 6

7. Write short notes on : 5×4=20

(i) Fragmentation Offset

(ii) Maximum Transfer Unit (MTU)

(iii) Error-Reporting of ICMP

(iv) OSI Reference Model.

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