Total number of printed pages–3

53 (EC 604) CMNW

2016

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)* Find the range of addresses in the following blocks :   5+5=10

    (i) 200.17.21.128/27

    (ii) 17.34.16.0/23

   (b) Describe the Go-Back-N ARQ protocol.

   10

2. *(a)* Differentiate between circuit-switched and packet-switched networks.   6

(b) What is an ATM network ? Describe its architecture. Describe various ATM layers. 3+5+6=14

3. *(a)* Describe in brief the functions of each layer of the OSI reference model.

    12

   (b) Discuss three-way handshaking of connection establishment in TCP.

    8

4. *(a)* Explain character-stuffing and bit-stuffing framing methods of data link layer. 10

   (b) Discuss the functioning of TELNET for remote logging. 10

5. *(a)* Discuss the functioning of SMTP. Explain the general architecture of e-mailing system. 4+7=11

   (b) Write the important features of HDLC.

    5

   (c) How is HTTP related to www ? 4

6. *(a)* What is domain name system (DNS) ? Explain the various DNS domains used in internet. 3+9=12

   (b) What are the various ICMP error-reporting messages ? 8

7. Write short notes on the following : 4×5=20

   (i) Symmetric Cryptography

   (ii) IGMP

   (iii) Piggybacking

   (iv) IPv6.