53 (EC 604) CMNW

2017

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)* Define framing and the reason for its need. 4

   (b) Define piggybacking and its usefulness. 4

   (c) Discuss Stop-and-Wait protocol.

   12

2. *(a)* Discuss the *three* different phases of circuit switching. 6

Contd.

(b) Why is internet called as a datagram-switching network? 5

(c) Explain the different types of DNS used in the internet. 9

3. *(a)* Describe remote log-in using TELNET. 10

(b) Describe an electronic-mail scheme. 10

4. *(a)* Discuss about the variants of standard ethernet, fast and gigabit ethernet. 8

(b) Describe the responsibilities of data link layer. 8

(c) A packet has arrived in which the offset value is 100, the value of HLEN is 5 and the value of the total length field is 100. What are the numbers of the first byte and the last byte? 4

5. *(a)* What do you mean by flow control and error control? 6

(b) Differentiate between a hub and a switch. 5

(c) What is ATM switching? Discuss different layers of ATM networks.

3+6=9

6. *(a)* Draw a neat diagram of OSI Reference Model. 5

(b) Differentiate between TCP and IP.

5

(c) Explain the IPv4 datagram header format. 10

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

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

(c) Explain different open-loop congestion control techniques. 8