2018

CBCS

3rd Semester

COMPUTER SCIENCE

PAPER—C7T

(Honours)

Full Marks : 40

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Computer Networks

Group—A

1. Answer any *five* questions :   5×2

(a) Give examples of Simplex and Half-Duplex mode of communication.

(b) Define band rate and bit rate.

(c) Find the class of the following IP address :

172.19.12.81

(d) What is the use of modem ?

(e) What is subnet mask ?

(f) Define protocol.

(g) The period of a signal is 100 ms. What is its frequency in kilohertz ?

(h) What is the function of a switch ?

Group—B

Answer any *four* questions. 4×5

2. Given a bit sequence of 1011001 and a divisor of 1011, find the CRC.

3. What is ISO/OSI Ref. model ? Briefly describe the functionalities of each layer.

4. Explain the working mechanism of Go-Back-N-ARQ technique with a suitable diagram.

5. Compare TCP and UDP.

6. What are the advantages and disadvantages of ring topology ? Write a short note on fiber optic cable ?

2+3

7. What are the basic difference between "Message switching" & "Circuit switching" technique ? Write a short note on TCP/IP protocol.

2+3

Group—C

Answer any *one* question.

1×10

8. (a) Briefly describe FDM Process.

(b) Define : unicast, multicast, broadcast.

(c) What is cryprography ?

5+3+2

(Turn Over)

9. What is logical addressing in network layer ? What are the responsibilities of the transport layer in OSI model ? What do you mean by syntax and semantics of a Protocol ?　　　　　2+4+4