VI Semester B.Sc. Examination, April/May - 2018
(Semester Scheme) (2013-14 Batch on Wards) (New)
COMPUTER SCIENCE
Computer Networks (Paper - 8)

Time : 3 Hours

Max. Marks : 80

Instruction: Answer any two full questions from Part A,B,C, and Part- D is compulsory.

Part - A

1 a) Explain components involved in data communication.   [5]

   b) Explain different types of computer networks.   [5]

2. a) Explain fiber optic cable in detail.   [6]

   b) Explain any two analog to analog conversion.   [4]

3. a) Define topology? Discuss any two types of topologies.   [5]

   b) Differentiate manchester coding with differential manchester. [5]

Part - B

4 a) Explain the services of physical layer and network layer. [6]

   b) Differentiate between dynamic and static IP addressing.   [4]

5 a) Write a note on: [6]

   i)   SMTP   ii)   ALOHA

   b) Write the applications of Gateway.   [4]

P.T.O.

6   a)   Explain IPV4 Protocol   [4]

     b)   Explain TCP/IP suite.   [6]

Part - C

7   a)   Explain the concept of packet switching.   [5]

     b)   Explain leaky Bucket algorithm.   [5]

8   a)   Define   [10]

        i)   Single bit error

        ii)   Burst error

        iii)   Redundancy

        iv)   Checksum

        v)   Hamming distance

9   a)   Explain Dijkstra's shortest path algorithm with a suitable example.   [7]

     b)   Write a note on routing table.   [3]

Part - D

Answer any five questions: [5×4=20]

10. Write a note on bit synchronization.

11. Explain Radio wave Transmission system.

12. Explain any two transmission modes.

13. Differentiate logical addressing with physical addressing.

14. Write a note on FTP and ARP.

15. Explain any one error correcting code. With an example.