



**VI Semester B.Sc Examination, September - 2020**  
**(Semester Scheme) (Non CBCS) (2013-14 Onwards)**

**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) What is data communication? Explain its characteristics. [5]  
b) Describe any two Network Topologies with their advantages and disadvantages. [5]
2. a) Explain LAN, MAN and WAN Networks. [6]  
b) Explain any one unguided transmission media. [4]
3. a) Explain ASK and FSK. [6]  
b) Differentiate Baseband and Broad band transmissions. [4]

**PART-B**

4. a) Explain the services of Data link layer in OSI model. [4]  
b) Give an account of Routers switches and Gateways. [6]
5. a) Briefly explain, Bridges and Repeaters with their applications. [4]  
b) Explain the functions of the transport layer in the OSI model. [6]



6. a) Explain types of IP addressing. [4]  
b) Explain HTTP, FTP and 'UDP' Protocol. [6]

### PART-C

7. a) Explain the following : [6]  
i) Virtual circuit packet switching  
ii) Datagram Packet switching  
b) Write a note on Leaky bucket. [4]
8. a) Write a note on Routing Table. [4]  
b) Explain Hamming Code Correction method. [6]
9. a) With an example explain Dijkstra's Routing algorithm. [6]  
b) What is redundancy? Explain any one of the error detection method. [4]

### PART-D

Answer any FIVE questions.

[5 × 4 = 20]

10. Explain, any two transmission modes.  
11. Explain, Satellite Communication system.  
12. Discuss SMTP and TCP.  
13. Explain, Application layer in OSI Model.  
14. Explain, Types of Errors.  
15. Explain the Network Services.

