

**Question Bank (G scheme)**

**Name of subject: DATA COMMUNICATION AND NETWORKING**

**Unit Test :I**

**Subject code: 17430**

**Course :IF**

**Semester: IV**

**CHAPTER: 1 Introduction to Data Communication and Networking**

**Objectives**

**(20 Marks)**

**3 Marks**

1. Describe standard organization with their types.
2. Explain data transmission rate and bit rate, baud rate.
3. Compare digital signal and analog signal
4. Explain use of modem in transmission.
5. Describe half duplex and full duplex communication
6. Compare FDM and TDM.

**4 Marks**

7. Describe component of data communication and explain characteristics of data communication?
8. Define protocol, protocol standards organization.
9. Describe bandwidth of signal, and bandwidth of medium.
10. Describe the concept of modem.
11. Describe Parallel transmission in details.
12. Describe the Serial communication and their types.

**CHAPTER: 2 Transmission Errors: Detection and Correction, Transmission**

**Media and Network Topologies**

**(22 Marks)**

**3 Marks**

13. Explain single bit error and burst bit error.
14. Describe VRC with example
15. Describe Star topology with neat diagram and advantages and disadvantages.
16. Describe mesh topology with neat diagram and list its advantages and disadvantages.
17. Describe Piconet with neat diagram.

**4 Marks**

18. Describe transmission impairment (classification of errors).
19. Describe CRC error detection technique with suitable example.
20. Describe Bluetooth technology with neat diagram.
21. Explain twisted pair cable with their types.
22. Describe the fiber optic cable with their advantages and disadvantages.