

# Pre-board Examination - 2024

**Subject: IT 240: Business Data Communication and Networking FM: 60**

**Semester: BIM 4th Semester Time: 3 hrs**

**Group A**

**Brief Answer Question: [1\*10=10]**

**Attempt all the Questions.**

* + 1. List the components of data communication.
    2. What is DSL?
    3. What are the three factors to be considered while improving LAN performance?
    4. Define instant messaging.
    5. Define synchronous communication.
    6. Write the protocols used in transport layer.
    7. What is backbone?
    8. What is VLAN.?
    9. What is cost management?
    10. What is IoT?

**Group B**

**Short Answer Question:**

**Attempt any five questions [5\*3=15]**

11.Explain how VPN works with suitable diagram.

12. What is the difference between switched backbone and routed backbone.

13. Explain how internet works?

14. Explain the working mechanism of Checksum.

15.Encode 10110011 using Differential Machester and NRZ-L

16. What are the criteria’s for choosing architectures?

**Group C**

**Long Answer Questions: [3\*5=15]**

1. Describe how you can improve WAN Performance.
2. Explain the building block network design process with diagram.
3. The network address given to ABC organization is 192.3.1.0 and it is divided among 6 different department. Find NID, BID and Usable Range in each department. Also calculate host per subnet and block size.

**Group D**

**Comprehensive Questions [2X10=20]**

**Attempt all questions.**

1. Explain OSI Model and explain each layer with its function.
2. How do you choose the communication medium? Elaborate on the criteria involved. How is network performance designed?