



**Term Evaluation (Even) Semester Examination March 2025**

Roll no. 2392104

Name of the Course and semester: BCA 4th

Name of the Paper: Data Communications and Computer Networks

Paper Code: TBC404

Time: 1.5 hour

Maximum Marks: 50

**Note:**

- (i) Answer all the questions by choosing any one of the sub questions
- (ii) Each question carries 10 marks.
- (iii) Please specify COs against each question.

Q1. (10 Marks)

a. Differentiate between packet and message switching. Which one is also known as store and forward mechanism. (CO1)

OR

b. Explain types of guided media with their application, advantages and disadvantages. (CO2)

Q2. (10 Marks)

a. Why need of layered architecture in computer networks? Explain each layer of OSI reference model. (CO1)

OR

b. Why the topologies are required in computer network? What are the different topologies and which one is most reliable topology. (CO2)

Q3. (10 Marks)

a. How client server is different from peer-to-peer system explain with advantages and disadvantages. (CO1)

OR

b. Differentiate between unicasting, multicasting and broadcasting casting. In which multiple receivers are linked to one? (CO1)

Q4. (10 Marks)

a. How to convert the analog signal to digital signal? Explain the pulse code modulation with suitable example. (CO2)

OR

b. Explain the classifications of serial transmission with suitable example and differentiate? (CO1)

Q5. (10 Marks)

a. To merge different source of input into a single light for the communication uses optical fiber communications supports which type of multiplexing is used? How it is different from others. (CO2)

OR

b. How does the imperfection where the signal at the beginning of the medium differs from the signal at the end lead to signal impairment? (CO1)