

Enrollment No./Seat No.:

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA INTEGRATED - SEMESTER - IV EXAMINATION - WINTER 2025

Subject Code: 2648603

Date: 02-12-2025

Subject Name: Computer Networking

Time: 02:30 PM TO 05:00 PM

Total Marks: 70

Instructions

- 1. Attempt all questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**
- 4. Use of simple calculators and non-programmable scientific calculators are permitted.**

	Marks
Q.1 (a) What is Computer network? Explain different types of networks.	07
(b) Explain Connection oriented vs. Connection less services.	07
Q.2 (a) Explain OSI reference model.	07
(b) What is guided media? Explain any two types in details.	07
OR	
(b) Explain Radio wave, Microwave and infrared with suitable example.	07
Q.3 (a) Explain stop-and-weight protocol for noisy channel.	07
(b) Explain the design issues of the data link layer and its main functions.	07
OR	
(a) Explain sliding window protocol with example.	07
(b) What is CSMA? Compare CSAM/CA and CSMA/CD.	07
Q.4 (a) Explain Bluetooth architecture with its applications.	07
(b) What is the importance of ALOHA in network? Explain Pure ALOHA and Slotted ALOHA protocols.	07
OR	
(a) Explain Distance vector routing with suitable example.	07
(b) Explain the difference between IPV4 and IPV6.	07
Q.5 (a) Explain Link state routing with suitable example.	07
(b) Explain TCP header format.	07
OR	
(a) Explain the followings: Repeater, Hub, Bridge, Switch, Router, and Gateway.	07
(b) Explain Domain Name System (DNS) with the importance of resource record. Explain any four resource records.	07
