

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA – SEMESTER II- EXAMINATION –WINTER-2025

Subject Code: 629404

Date: 18/11/2025

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.

- Q.1** (a) Explain connection-oriented versus connectionless service. **07**
(b) Explain any one guided transmission media with appropriate diagram. **07**
- Q.2** (a) Explain byte stuffing with appropriate example. **07**
(b) What is modulation? Explain ASK, FSK, PSK. **07**
- OR**
- (b) Explain stop-and-wait protocol. **07**
- Q.3** (a) Explain OSI reference model. **07**
(b) Explain radio transmission. **07**
- OR**
- Q.3** (a) Explain cyclic redundancy check with appropriate example. **07**
(b) Explain CSMA with collision detection. **07**
- Q.4** (a) Explain hidden terminal problem and exposed terminal problem. **07**
(b) Explain distance vector routing with count-to-infinity problem. **07**
- OR**
- Q.4** (a) Explain transport service primitives. **07**
(b) Explain IEEE 802.3 frame format. **07**
- Q.5** (a) Explain simple mail transfer protocol and extensions. **07**
(b) Explain the TCP segment header. **07**
- OR**
- Q.5** (a) Explain store-and-forward packet switching. **07**
(b) Explain domain resource records. **07**
