

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA INTEGRATED– SEMESTER IV - EXAMINATION –WINTER-2022

Subject Code: 2648603**Date: 20/12/2022****Subject Name: Computer Networking****Time: 10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Do as Directed. **07**
1. What is jitter?
 2. Give full form of SMTP.
 3. What is meant by: a) WAN b) PAN
 4. What is Repeater?
 5. What is Flooding?
 6. Define: Wavelength.
 7. What is Piggybacking?
- (b) Explain OSI reference model with its all seven layers in details. **07**
- Q.2** (a) Define Computer Network? What are different types of Networks. **07**
- (b) 1. Write short note on Electromagnetic Spectrum? **03**
2. Compare Circuit Switching and Packet Switching. **04**
- OR**
- (b) List different types of framing techniques? Explain Byte stuffing with suitable example. **07**
- Q.3** (a) What is Multiplexing? Explain working of FDM & TDM with suitable diagram. **07**
- (b) Write a short note on Aloha & Slotted Aloha. **07**
- OR**
- Q.3** (a) Explain Link State Routing Algorithm in detail. **07**
- (b) Explain the Go-Back-N protocol and Selective Repeat Protocol. **07**
- Q.4** (a) 1. Explain CRC for error detection with suitable example. **04**
2. Explain the terms Hub, Bridge, Switch in brief. **03**
- (b) Compare Virtual-Circuit Network and Datagram Network **07**
- OR**
- Q.4** (a) Explain Distance Vector Routing Algorithm. **07**
- (b) 1. Discuss the Three-way Handshake technique. **04**
2. Difference between TCP and UDP? **03**

- Q.5** (a) Discuss CSMA/CD in details. **07**
- (b) 1. Define IPV6. **04**
2. Explain Error Control and Flow Control in brief. **03**
- OR**
- Q.5** (a) Discuss Domain Name Space. **07**
- (b) Explain Bluetooth architecture. **07**
