

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA - SEMESTER-IV EXAMINATION – WINTER 2018

Subject Code: 640001

Date: 16/11/2018

Subject Name: Fundamentals of Networking

Time: 10.30 am to 1.00 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) Write a note on OSI layers. **07**
(b) Differentiate between Hub and Switch. **07**
- Q.2** (a) Explain Link state routing protocol in detail. **07**
(b) State the difference between FDM & TDM **07**
- OR**
- (b) Define: 1. Cryptanalysis 2. Piggybacking 3. SMTP **07**
- Q.3** (a) What is problem in Distance Vector Routing? Explain it. **07**
(b) Discuss Bit Stuffing and Byte Stuffing. **07**
- OR**
- Q.3** (a) Write a note on Fiber optic cable. **07**
(b) Discuss duties of Transport and Session Layers. **07**
- Q.4** (a) Write a note on Micro wave transmission. **07**
(b) What is Handshaking? Explain types of it. **07**
- OR**
- Q.4** (a) Explain Selective repeat protocol in detail. **07**
(b) Explain working of Active Repeater and Passive Interfaces? **07**
- Q.5** (a) What is Congestion? Explain Congestion Control in Datagram Subnet. **07**
(b) Explain Cipher Block Chaining mode with example. What is advantage of it? **07**
- OR**
- Q.5** (a) Explain Digital Signature using public-key cryptography in detail. **07**
(b) Explain RSA Algorithm with example. **07**
