

Seat No.: _____

Enrolment No. _____

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

Subject Code:3640002

Date:19/11/ 2018

Subject Name: Basic Computer Science 3 – Computer Networking

Time:10.30 am - 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) Define Computer Network? What are different types of networks? **07**
(b) List different type of framing techniques? What is Byte stuffing? With suitable example discuss use of flag byte? **07**
- Q.2** (a) What is OSI Model? Explain the functions and protocols and services of each layer? **07**
(b) What is electromagnetic spectrum? What are radio waves & Micro waves? **07**
- OR**
- (b) What is Modulation? List modulation techniques and explain any one in detail. **07**
- Q.3** (a) What are Multimode Optic Fibers? Compare UTP, Coaxial cable & Fiber Optic. **07**
(b) Write a note on Aloha & Slotted Aloha. **07**
- OR**
- Q.3** (a) Write a short note on Hidden station and Exposed station problem **07**
(b) Differentiate between 1) Connection less vs. Connection oriented **07**
2) LEOs vs. MEOs
- Q.4** (a) Discuss CSMA/CD in details **07**
(b) What are duties of Network Layer? **07**
- OR**
- Q.4** (a) Explain IEEE 802.3 and DIX frame structure in detail **07**
(b) Explain Distance Vector Routing Algorithm **07**
- Q.5** (a) What is Three way Handshake? **07**
(b) Write the advantages of hierarchy of domain name space. **07**
- OR**
- Q.5** (a) Write a note on HTTP? **07**
(b) What is Bluetooth? Explain its architecture. **07**
