

**K. J. SOMAIYA INSTITUTE OF MANAGEMENT STUDIES AND  
RESEARCH**

**MCA –Semester II (Batch - 2016-2019)**

**Subject: Computer Networks  
(End term Examination)**

**Maximum Marks: 50**

**Duration: 3 hours**

**15/4/2017**

**Notes:**

- 1. Q.1 is compulsory**
- 2. Attempt any four from Q.2 to Q.7**
- 3. Do not mix sub-questions**

**Q.1**

(a) Explain in detail the link state routing algorithm with an example.

(07)

(b) How do guided media differ from unguided media?

(03)

**Q.2**

(a) Give two features that the data link layer and transport layer have in common.

Give two features in which they differ.

(04)

(b) With reference to the transport layer, outline the connection set - up operation of 3 - Way handshaking through a diagram. What are its advantages?

(06)

**Q.3**

(a) Given a remainder of 111, a data unit of 10110011, and a divisor of 1001, is there an error in the data unit?

(04)

(b) Explain CSMA/CD and its use.

(06)

Q.4

(a) Describe the different methods for congestion control.

(07)

(b) If you wanted to give some station twice the bandwidth of another, would you prefer to use FDMA or TDMA? Why?

(03)

Q.5

(a) Explain multicasting routing protocols in detail. (07)

(b) Using bit stuffing, what will be the transmitted frame for the bit pattern —  
1011111011111111001. (03)

Q.6

Write short notes on any **two** (10)

(a) PPP

(b) DHCP

(c) DNS

(d) SMTP

Q.7

(a) What is the difference between pure ALOHA and slotted ALOHA? (03)

(b) Explain IPv4 datagram header. (04)

(c) What is the difference between TCP and UDP? (03)

-----End of Paper-----