

Total No. of Questions : 8]

SEAT No. :

**PB3655**

**[6261]-63**

[Total No. of Pages : 2

**S.E. (Information Technology)**  
**BASICS OF COMPUTER NETWORK**  
**(2019 Pattern) (Semester- III) (214445)**

*Time : 2½ Hours ]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right side indicate full marks.*
- 4) *Assume Suitable data if necessary.*

**Q1) a) Explain FDMA, TDMA & CDMA with neat diagram. [9]**

**b) Draw and Explain MAC Frame Format of 802.3. [9]**

OR

**Q2) a) Discuss CSMA/CA random access technique. How collision avoidance is achieved in the same? [9]**

**b) Write short note on IEEE 802.4(Token Bus) and IEEE 802.5(Token Ring). [9]**

**Q3) a) Discuss Network Layer Services. Illustrate IPv4 addresses with respect to classess. [9]**

**b) Explain Classful and Classless Addressing with example. [8]**

OR

**Q4) a) Describe Subnetting and Supernetting with example. [9]**

**b) Explain in detail fragmentation in terms of IPv4. [8]**

**P.T.O.**

- Q5)** a) Discuss Distance Vector Routing protocol in detail. [9]  
b) Explain EIGRP protocol in detail. [9]

OR

- Q6)** a) Discuss OSPF protocol in detail. [9]  
b) Explain Link State Routing protocol in detail. [9]

- Q7)** a) What is congestion Control? Explain leaky bucket algorithm. [9]  
b) Explain the use of different timers in TCP. [8]

OR

- Q8)** a) Explain various socket primitives used in connection oriented client server approach. [9]  
b) Discuss with neat diagram TCP header format. [8]