Total No. of Questions : 8]

SEAT No. : [ ]

PB3655

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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]**