Total No. of Questions : 8]

SEAT No. :

PC1778

[Total No. of Pages : 2

[6353]-97

T.E. (E & TC)

COMPUTER NETWORKS

(2019 Pattern) (Semester - I) (Elective - I) (304185 D)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***Answer Q.1 or Q.2, Q3 or Q4, Q5 or Q6, Q7 or Q8.***
2) ***Neat diagrams must be drawn wherever necessary.***
3) ***Figures to the right indicate full marks.***

Q1) a) Explain different network layer design issues. **[4]**

b) Give classification of switching? Explain packet switching in detail. **[6]**

c) Explain network layer protocols with suitable diagram. **[6]**

OR

Q2) a) Compare connection oriented and connectionless services. **[4]**

b) Explain the concept of classful and classless addressing. **[6]**

c) Draw and explain IPV4 frame format. **[6]**

Q3) a) What are different methods are used for transfer the packets? Explain broadcast routing with advantages and disadvantages. **[6]**

b) Explain Internet Group Message Protocol (IGMP) with suitable architecture diagram. **[6]**

c) Explain in detail path vector with suitable diagram. **[6]**

OR

P.T.O.

Q4) a) Explain OSPF with suitable diagram and special areas. **[6]**

b) Explain BGP with four different messages. **[6]**

c) Compare link state routing algorithm and distance vector algorithm. **[6]**

Q5) a) List the features of transport layer services provided to upper layer. Explain one in detail. **[4]**

b) What are transport service primitives? Explain in brief. **[6]**

c) Explain in detail TCP with header format. **[8]**

OR

Q6) a) List and explain services provide by SCTP. **[4]**

b) What is congestion control? List the typical QoS parameters in the transport layer and explain each one. **[6]**

c) Explain user datagram protocol. **[8]**

Q7) a) Explain feature of HTTP. **[4]**

b) Explain TELNET in detail with respect to server and client communication. **[6]**

c) What are the different commands used in FTP? Explain File transfer Protocol in detail. **[8]**

OR

Q8) a) Write short on SMTP. **[4]**

b) Explain post office protocol with neat diagram. **[6]**

c) Explain with neat diagram working of Bootstrap protocol (BOOTP). **[8]**

■■■■