Total No. of Questions : 8]

SEAT No. :

P1005

[Total No. of Pages : 2

[5870] - 1068
T.E. (Electronic & Telecommunication)
COMPUTER NETWORKS
(2019 Pattern) (Semester - I) (304185 (D) (Elective-I)

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 whenver necessary.***
3) ***Assume suitable data, if necessary.***

Q1) a) Explain the various performance parameters of network layer. **[6]**

b) Explain the services provided by Network Layer. **[6]**

c) Compare datagram switching and virtual circuit switching **[6]**

OR

Q2) a) Explain error reporting messages, informational messages, neighbour discovery messages and group membership messages related to ICMPv6. **[6]**

b) Explain the network id and host id. **[6]**

c) What is the difference between classless addressing and classful addressing? Concepts related to IPv4 addresses. **[6]**

Q3) a) Explain the unicast routing and multicast routing protocol **[8]**

b) What is routing? Explain the distance vector routing algorithm **[9]**

OR

Q4) a) What is routing? Explain the link state routing algorithm **[8]**

b) Explain inter-domain and intra-domain routing. **[9]**

P.T.O.

Q5) a) Explain TCP Connection establishment, TCP data transfer and TCP connection termination. **[9]**

b) What are the duties of Transport Layer? List the services provided by Transport Layer to upper layers. **[9]**

OR

Q6) a) Waht is congestion control? Explain the leaky bucket algorithm with suitable diagram. **[9]**

b) Draw TCP header and explain function of each field. **[9]**

Q7) a) Explain the DNS in detail. **[8]**

b) Explain the architecture of E-mail. **[9]**

OR

Q8) a) Explain the telnet protocol and FTP Protocol with diagram. **[8]**

b) Explain BOOTP and DHCP Protocol. **[9]**