Total No. of Questions : 8]

SEAT No. : [ ]

PD4297

[Total No. of Pages : 2

[6403]-95

T.E. (Electronics & Telecommunication Engineering)

COMPUTER NETWORKS

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

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) ***Use of Calculator is allowed.***
5) ***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, neighbor discovery messages and group membership messages related to ICMPv6. **[6]**

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

c) What is difference between classless addressing and classfull addressing related to IPv4 addresses? **[6]**

Q3) a) Explain unicast routing and multicast routing protocol. **[9]**

b) What is routing? Explain the distance vector routing algorithm. **[8]**

OR

Q4) a) What is routing? Explain the link state routing algorithm. **[9]**

b) Explain inter-domain and intra-domain routing. **[8]**

P.T.O.

Q5) a) Explain TCP services and its features with relevant diagram. **[9]**

b) Explain various transport layer quality of services parameters. **[8]**

OR

Q6) a) Explain TCP connection establishment using three way handshaking. **[9]**

b) Explain UDP protocol and its features with relevant diagram. **[8]**

Q7) a) Explain the DNS in detail. **[6]**

b) Explain FTP protocol. **[6]**

c) Explain simple mail transfer protocol. **[6]**

OR

Q8) a) Explain internet message access protocol. **[6]**

b) Explain how DNS server works. **[6]**

c) Explain dynamic host configuration protocol. **[6]**