

Total No. of Questions : 10]

SEAT No. :

P2019

[Total No. of Pages : 2

[5059] - 622
B.E. (E & T/C)
COMPUTER NETWORKS
(2012 Pattern) (Semester - I)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *Answer Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8, Q9 or Q10.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Use of calculator is allowed.*
- 4) *Assume suitable data, if necessary.*
- 5) *Figures to the right indicate full marks.*

Q1) a) Classify different transmission media. Give advantages and disadvantages of fiber cable? **[6]**

b) Explain communication in Datagram Network? **[4]**

OR

Q2) a) State and explain stop and wait ARQ protocol? **[6]**

b) Write a short note on Gigabit Ethernet? **[4]**

Q3) a) Explain and correlate any four connecting devices with OSI reference model? **[4]**

b) Explain flow control in data link layer? **[6]**

OR

Q4) a) Compare Bluetooth with Zigbee? **[4]**

b) What characteristics can be used to group stations in VLAN? **[6]**

Q5) a) Explain IPv6 protocol? **[5]**

b) Explain unicast and multicast routing? Give one application of multicasting. **[6]**

c) Explain remote and mobile host communication in mobile IP? **[6]**

OR

P.T.O.

- Q6)** a) What is ICMPv4? Explain general format of ICMPv4 messages? [5]
b) Explain different performance parameters of Network layer? [6]
c) Explain different network layer services? [6]

- Q7)** a) Explain various transport layer protocols? [7]
b) List the services provided to upper layers by transport layer. Explain any one in detail. [6]
c) Explain what is socket? [4]

OR

- Q8)** a) Explain port numbers and socket addresses? [7]
b) Explain the features of SCTP? [4]
c) Explain connection establishment and connection termination with respect to the transport layer? [6]

- Q9)** a) Compare symmetric key cryptography with asymmetric key cryptography. Explain RSA algorithm. [8]
b) Write a short note on: [8]
i) WWW
ii) HTTP

OR

- Q10)**a) Explain FTP and TELNET in detail with respect to Server and Client communication? [8]
b) How does electronic mail system work? What is the role of SMTP and POP-3 server in E-mail system? [8]

