Total No. of Questions : 10]

SEAT No. :

P100

[Total No. of Pages : 2

[5871]-602
B.E. (E & T.C.)
COMPUTER NETWORK AND SECURITY
(2015 Pattern) (Semester - 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, Q.9 or Q.10.***
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) Draw and explain the TCP/IP Protocol suite. **[6]**

b) Compare Packet switching vs. Circuit Switching. **[4]**

OR

Q2) a) A slotted ALOHA network transmits 200 bit frames using a shared channel with a 200kbps Bandwidth. Find the throughput if the system produces

i) 1000 frames per second **[6]**

ii) 500 frames per second

iii) 250 frames per second

b) Compare IPv4 vs. Ipv6 **[4]**

Q3) a) What is routing? Explain link state routing protocol. **[6]**

b) List and explain different types of addresses used in IPv4. **[4]**

OR

Q4) a) Draw and explain the format of IPv6 datagram. **[6]**

b) Explain the concept of unicast and multicast routing protocol. **[4]**

P.T.O.

Q5) a) Explain the connection establishment using three way handshaking in TCP Protocol. **[8]**

b) Compare connection oriented Vs connectionless services of transport layer. **[5]**

c) Explain the process to process delivery. **[5]**

OR

Q6) a) Draw and explain the TCP header and explain the function of each header. **[8]**

b) Compare UDP vs. TCP. **[5]**

c) Explain the different features of SCTP. **[5]**

Q7) a) Explain the Telnet and FTP with suitable diagram. **[8]**

b) Explain the Architecture of World wide web (WWW). **[8]**

OR

Q8) a) Explain the various functions of Network management system. **[8]**

b) Write a short note on electronic mail **[8]**

Q9) a) What is symmetric key cryptography? Explain Data encryption standards. **[8]**

b) Explain RSA Algorithm. **[8]**

OR

Q10)a) Explain confidentiality with Symmetric key cryptography and Asymmetric key cryptography. **[8]**

b) Explain the various security features offered by Pretty Good Privacy (PGP) **[8]**