Total No. of Questions : 12]

SEAT No. :

P3153

[Total No. of Pages : 2

B.E. (Electronics Engineering) (Semester - II)
COMPUTER NETWORK & SECURITY
(2008 Pattern)

Time : 3 Hours] *[Max. Marks : 100*

Instructions to the candidates:

1) ***Attempt Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6 from Section - I***
2) ***Attempt Q.7or Q.8, Q.9 or Q.10, Q.11 or Q.12 from Section - II.***
3) ***Answers to the two sections should be written in separate books.***
4) ***Neat diagrams must be drawn whenever necessary.***
5) ***Assume suitable data, if necessary.***

SECTION - I

Q1) a) Explain How do the layers of the TCP/IP model correlate to layer of OSI Model **[6]**

b) Explain in brief physical address, network address & port address **[6]**

c) Explain X.25 Protocol **[4]**

OR

Q2) a) Explain the OSI Reference model **[4]**

b) Compare LAN , MAN, and WAN **[6]**

c) What are the software Design issues for layer architecture **[6]**

Q3) a) Explain the following **[8]**

i) Telnet

ii) SNMP

b) Explain how DNS Server works **[8]**

OR

Q4) Attempt any four **[16]**

a) Socket programming

b) HTTP

c) BOOTP

d) SMTP

e) P2P file sharing

P.T.O.

Q5) a) What is routing? What are the types of routing? Explain the shortest path routing algorithm? **[9]**

b) Compare Ipv4 and lpv6 **[6]**

c) What are the advantages and Disadvantages of UDP protocol **[3]**

OR

Q6) a) What is Congestion in the Network? What are the factor that causes congestion in network? Explain leaky bucket algorithm. **[9]**

b) Explain with suitable diagram TCP connection Establishment, TCP data transfer and TCP connection Termination. **[9]**

SECTION - II

Q7) a) What is framing? Explain bit oriented protocol. **[8]**

b) Explain Go-Back-N automatic repeat request protocol. **[8]**

OR

Q8) a) Explain HDLC Protocol **[8]**

b) Explain the IEEE 802.11 **[8]**

Q9) a) What is Transmission Media? Explain the Guided Transmission Media. **[8]**

b) A channel has a B.W. Of 5 KHz and signal to noise ratio power ratio is 63. Determine the Bandiwidth Needed if the S/N power ratio is reduced to 31. **[4]**

c) Draw and Explain Electromagnetic spectrum for Wireless communication. **[4]**

OR

Q10) a) Explain DSL Technology. **[8]**

b) Compare Circuit switching, message siwtching and packet switching. **[8]**

Q11) a) What is Cryptography? Explain the Data Encryption standard in details. **[9]**

b) What is asymmetric cryptography? Explain RSA Algorithm with example. **[9]**

OR

Q12) a) Explain the Hash Function. **[6]**

b) Explain the cable tester. **[6]**

c) Explain the basics of networks security model. **[6]**

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