Total No. of Questions : 12]

SEAT No. :

P3382

[Total No. of Pages : 3

[4959]-122
B.E.(Electronics)
COMPUTER NETWORK AND SECURITY
(2008Course) (Semester-II) (404207)

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

Instructions to the candidates:

1) ***Attempt Q1 or Q2, Q3 or Q4, Q5 or Q6 from section- I.***
2) ***Attempt Q7 or Q8, Q9 or Q10, Q11 or Q12 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 types of networks. **[6]**

b) Give applications of Bus, Star, Mesh, Ring topologies. **[4]**

c) Briefly discuss the working of Frame relay. **[6]**

OR

Q2) a) Enlist layers of OSI model with their functions. **[6]**

b) What are the types of services? Explain. **[6]**

c) Discuss advantages and disadvantages of computer networks. **[4]**

Q3) a) What is PING? When is it used? **[4]**

b) Explain the working of SMTP and SNMP with diagram. **[8]**

c) What is a Socket? What are the types of Socket? **[4]**

OR

Q4) a) How is TELNET implemented? **[6]**

b) Compare FTP and TFTP. **[4]**

c) What is HTML? Where is HTML used? Write a program displaying a slogan using HTML. **[6]**

P.T.O.

Q5) a) With diagram explain connection establishment and release at transport layer. **[6]**

b) Explain - Quality of Service, Traffic shaping, Buffering, Jitter control. **[8]**

c) What are the principles of congestion control? **[4]**

OR

Q6) a) Explain ARP, RARP, ICMP, IGMP. **[8]**

b) What are the issues at Network layer? **[4]**

c) Explain any two routing algorithms. **[6]**

SECTION-II

Q7) a) Explain functions of Datalink layer. **[6]**

b) Explain Stop-n-Wait protocol. **[6]**

c) Explain with diagram types of Ethernet. **[6]**

OR

Q8) a) Explain HDLC & PPP Protocol. **[6]**

b) Explain network components- Hubs, Repeaters, Bridges, Switches, Routers, Gateways. **[12]**

Q9) a) What are the types of Transmission Media? Explain the in detail one Transmission media. **[8]**

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

c) Explain SONET. **[4]**

OR

Q10) a) Explain circuit switching with diagram and example. **[8]**

b) Describe the structure of Packet switch. **[4]**

c) Explain physical layer of 802.11 LAN. **[4]**

Q11) a) What is Cryptography? Explain a Public key algorithm. **[6]**

b) Write a short note on Network simulation. **[6]**

c) What is a Hash function? **[4]**

OR

Q12) a) What is network tester used for? **[4]**

b) How is internet accessed through Dialup modem? **[6]**

c) Explain X-802.5 security architecture. **[6]**