Total No. of Questions : 10]

SEAT No. :

P3310

[Total No. of Pages :2

[5461] - 562

B.E. (Electronics & Telecommunication)

COMPUTER NETWORKS AND SECURITY

(2015 Pattern) (Semester - I) (404182)

Time : 2½ Hours] *[Max. Marks :70*

Instructions to the candidates:

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

Q1) a) Draw TCP/IP protocol suite. List with example addresses present at every layer. **[6]**

b) Explain the Gigabit Ethernet networks. **[4]**

OR

Q2) a) Explain medium access control in IEEE 802.11. **[6]**

b) List the various protocols giving their significance at network layer. **[4]**

Q3) a) Explain remote and mobile host communication in mobile IP. **[6]**

b) Briefly define subnetting. How do the subnet mask differ from a default mask in classful addressing? **[4]**

OR

Q4) a) What is dynamic routing? Discuss distance vector routing. **[6]**

b) List and explain different types of addresses used in IPv6. **[4]**

P.T.O.

Q5) a) What are the main objectives of transport layer? Explain with neat diagram process to process delivery in transport layer. **[9]**

b) Explain connection establishment and connection termination with respect to the transport layer. **[8]**

OR

Q6) a) Draw the TCP header, Explain the function of each field. **[9]**

b) State and explain the important features of SCTP. **[8]**

Q7) a) Explain Telnet and FTP in detail with respect to server and client communication. **[9]**

b) What is the importance of the DNS? Explain the components of the DNS system. **[8]**

OR

Q8) a) How does electronic mail system work? What is the role of SMTP and POP-3 server in E-mail system? **[9]**

b) Explain how a web page is accessed through internet by a browser. **[8]**

Q9) a) What is cryptography? Explain in brief substitution cipher and transposition cipher. **[8]**

b) Explain the RSA algorithm with suitable example. **[8]**

OR

Q10) a) Explain the various security features offered by PGP. **[8]**

b) Explain the utility and security aspects in digital signature. **[8]**

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