[5354]-602
B.E. (E & TC) (End Semester)
COMPUTER NETWORKS
(2012 Pattern)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates :

1) Answer Q.1 or Q.2, Q.3 or Q4, Q.5 or Q6, Q.7 or Q.8.

2) Neat diagrams must be drawn wherever necessary.

3) Figures to the right side indicate full marks.

4) Assume Suitable data if necessary

Q1) a) State the names of different layers in OSI Model and explain functions of each layer. **[7]**

b) State & explain Stop-and-Wait ARQ Protocol. **[7]**

c) Draw the neat diagrams & explain Bus Backbone network & Star Backbone networks. **[6]**

OR

Q2) a) Draw TCP/IP protocol suite. List with example, addresses present at each layer. **[7]**

b) What are the common standard fast Ethernet implementations? Explain.**[7]**

c) Explain Bluetooth frame format. **[6]**

Q3) a) Explain IPv4 classful addressing and state its disadvantages. **[6]**

b) Write short notes on **[6]**

i) ARP

ii) RARP

c) Explain different multicast routing protocols. **[6]**

OR

Q4) a) Draw and explain the header format for IPv6. **[6]**

b) Give general format of ICMP and explain different types of error reporting messages used in ICMP. **[6]**

c) Write short notes on DHCP. **[6]**

P.T.O.

Q5) a) Compare between TCP and UDP. Under what circumstances you will use them. **[8]**

b) What are four general techniques used to improve quality of service in network? Explain. **[8]**

OR

Q6) a) Explain the TCP Connection management in Client/Server model. **[6]**

b) Write a short note on congestion control. **[6]**

c) Draw and explain UDP frame format. **[4]**

Q7) a) List various Application layer protocols in TCP/IP and state significance of each. **[6]**

b) State & explain different domains in DNS. **[6]**

c) Explain the RSA algorithm. Also brief its limitations. **[4]**

OR

Q8) a) What are the main responsibilities of Application Layer? Explain in brief.**[6]**

b) Describe the functions of the FTP connections. Explain what kinds of file types FTP can transfer? **[6]**

c) What is entity authentication? What are different authentication methods? Explain. **[4]**

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