Total No. of Questions :10]

SEAT No. : ____

P3160

[Total No. of Pages : 2

[5461]-202
B.E. (E & TC)
COMPUTER NETWORKS
(Semester - I)(End Sem) (2012 Pattern) (404182)

Time : 2½ Hours] ***[Max. Marks :*** *70*

Instructions to the candidates:

1) ***Solve 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) ***Black figures to the right indicate full marks.***
4) ***Use of logarithmic tables slide rule, Mollier charts, electronic pocket calculator and steam tables is allowed.***
5) ***Assume suitable data, if necessary.***

Q1) a) Explain with suitable diagram, components used for data communication. **[6]**

b) Prove that for pure ALOHA throughput is @ 18%. **[4]**

OR

Q2) a) Explain with suitable example how effect of noise is reduced in UTP cable. **[5]**

b) Draw and explain transition state diagram used in PPP protocol. **[5]**

Q3) a) Justify, CSMA/CD not suitable for wireless communication. **[6]**

b) Explain different services provided by IEEE802.11. **[4]**

OR

Q4) a) Explain following : i) Repeater ii) NIC iii) Bridge **[6]**

b) Draw and explain LCP Frame Format. **[4]**

Q5) a) Explain subnetting and supernetting with suitable example. **[5]**

b) Explain with suitable diagram how ARP packet is encapsulated directly into data field in MAC frame **[5]**

c) Draw and explain IPv6 datagram format. **[7]**

OR

P.T.O.

Q6) a) Write short note on - Open shortest path first routing protocol. **[5]**

b) Explain multiplexing and demultiplexing in IP layer. **[6]**

c) For IP address 10.65.10.0 and subnet mask 255.255.255.224 calculate -
i) No. of subnet ii) No. of host per subnet iii) Valid subnet **[6]**

Q7) a) Explain different categories of services are useful for describing the transport service. **[6]**

b) Explain 4 ways of releasing using 3 ways handshake. **[6]**

c) Write short note on TCP congestion control. **[5]**

OR

Q8) a) Explain TCP timer management. **[8]**

b) Explain transport service primitives. **[5]**

c) Explain in brief services by transport layer. **[4]**

Q9) a) Explain Hyper Text Transfer Protocol. **[6]**

b) Explain subsystem of e-mail system. **[6]**

c) Explain with suitable example components of DNS. **[4]**

OR

Q10)a) Explain POP.. **[6]**

b) Explain Static & Dynamic Web Pages. **[6]**

c) Write short note no WWW. **[4]**