Roll No. | | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(Electronics & Electrical Engg.) (2012 to 2017 E-II)/
(Electrical & Electronics Engg.) (2013 & Onwards E-II) (Sem.–7)

COMPUTER NETWORKS

Subject Code : BTEEE-804E
M.Code : 71967

Time : 3 Hrs. Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Write briefly :

a) Bit rate and baud rate.

b) Write the full form of HDLC and PPP.

c) What are transmission impairments?

d) TCP and UDP.

e) What is piggybacking?

f) How many bits are consumed by IPv4 and IPv6 addresses respectively?

g) Switch, Router and Bridge.

h) Define MIME and POP3.

i) Define sub-netting.

j) What is HTTP and what is its purpose?

SECTION-B

2. Explain the OSI reference model in detail.

3. What is IP addressing? Discuss about the network bits, host bits, start address and end address in various classes of IPv4 in classful network design.

4. Explain distance vector routing protocol in detail with example. Does it suffer from count to infinity problem?

5. How does a token ring network work? In what way is it different from Ethernet?

6. Discuss the working of packet switching in detail. Also explain how the original message is reconstructed at the destination.

SECTION-C

7. Briefly explain about the working of following :

   a) Stop and Wait ARQ

   b) Leaky bucket algorithm

8. A bit stream 11010101 is transmitted using the standard CRC method. The generator polynomial is $x^4 + 1$. Show the actual bit string that is transmitted to the destination. Suppose that the fourth bit from the left is inverted during transmission. Show how that this error is detected at the receiver,s end.

9. Explain about :

   a) Ring, Bus and Star topologies.

   b) ARP and RARP

   c) CSMA/CD

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.