32524/E 240

Reg. No. | | | | | | | | |

V Semester B.C.A.3 Degree Examination, Nov./Dec. 2016
(Fresh New Syllabus)
COMPUTER NETWORKS

Time : 3 Hours Max. Marks : 80

Instructions *: 1) Answer* ***all*** *Sections.*
2) ***Draw*** *neat diagrams* ***wherever*** *necessary.*
3) Write question numbers ***correctly****.*

SECTION – A

1. Answer **any ten** questions : **(10×2=20)**
   a) Mention classification of computer networks.
   b) What are guided and unguided transmission media ? Give examples.
   c) What is unicasting and broadcasting ?
   d) Mention the functions of session layer.
   e) What is framing ?
   f) Mention different elementary data link protocols.
   g) What is the difference between pure ALOHA and slotted ALOHA?
   h) What is Blue tooth ?
   i) Define routing algorithm.
   j) Define congestion.
   k) What is transport entity ?
   l) Enlist the fields in UDP header.

SECTION – B

Answer **any four** questions. **(4×5=20)**

2. Explain radiowave and microwave transmissions.

3. Write a note on WAN.

P.T.O.

4. Describe one bit sliding window protocol.

5. Explain CSMA/CD protocol.

6. State the factors causing congestion. Explain hop-by-hop choke packets method for congestion control.

7. Explain two-army problem in releasing a connection of TCP protocol.

SECTION – C

Answer **any four** questions. **(4×10=40)**

8. Explain the TCP/IP reference model in detail.

9. Calculate a hamming codeword that can correct 1 bit error in the message 1001101. Also detect and correct error, assuming 4^{th} bit of a code word is changed from 1 to 0.

10. Discuss 802.11 wireless LAN standard.

11. List the general principles of congestion control and explain the token bucket algorithm.

12. Write short notes on :
    a) TCP
    b) Network topologies.