H.T.No. | | | | | | | | | | |

Code No: IT1507 **GEC-R14**

III B. Tech I Semester Regular / Suppl. Examinations, November 2017

COMPUTER NETWORKS

(Information Technology)

Time: 3 Hours **Max. Marks: 60**

Note: All Questions from **PART-A** are to be answered at one place.
Answer any **FOUR** questions from **PART-B.** All Questions carry equal Marks.

PART-A

6 × 2 = 12M

1. What are the differences between servers and clients on a data communication network?
2. Summarize the categories of multiplexing.
3. Explain single and two dimensional parity for error detecting.
4. Draw the flow diagram for P- persistent method in CSMA.
5. Define Basic Service Set in IEEE 802.11.
6. Draw the header format of request and response message.

PART-B

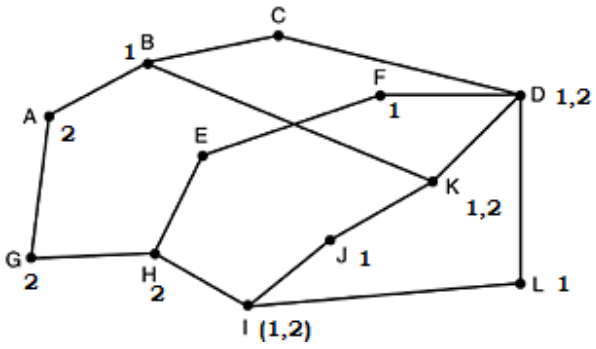
4 × 12 = 48M

1. List and briefly describe the five basic data communications network topologies. (12M)

2. Four channels are multiplexed used TDM. If each channel sends 100 bytes / s and we multiplex 1 byte per channel, show
   a) The frame travelling on the link
   b) The size of the frame.
   c) The duration of a frame.
   d) The Frame rate.
   e) The Bit rate for the link. (12M)

3. a) Briefly write about flow control protocols in Noiseless channel. (6M)
   b) Write an algorithm of Noiseless channel protocols. (6M)

4. a) Compute a multicast spanning tree for router C in the following subnet for a group with members at routers A, B, C, D, E, F, G, H, I, J, K and L. (Note: Groups are 1 & 2). (6M)



b) Explain Broadcast routing in Network Layer. (6M)

5. a) Show how the standard Ethernet address 47:20:1B:2E:08:EE is sent out online. (6M)

   b) What is the Hexadecimal equivalent of the following Ethernet address.
   01011010 00011000 01010101 10001000 00001010 00001111 (6M)

6. a) Define Entity header and elaborate the various entity headers. (6M)

   b) Write short notes on HTTP Transaction. (6M)

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