JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST-1 EXAMINATION – FEB 2020

B.Tech VIth Semester (ECE)

COURSE CODE: 10B11EC611   MAX. MARKS: 15

COURSE NAME: Telecommunication Networks

COURSE CREDITS: 4   MAX. TIME: 1HRS

Note: All questions are compulsory. Carrying mobile phone during examinations will be treated as a case of unfair means.

1. What do you mean by Physical Toplogy? Explain different types of topology.(CO-1) **[3]**

2. (a) Elaborate the functions of data link layer in OSI model. (CO-1) **[1.5]**

   (b) How is logical address different from port address in TCP/IP model? (CO-1) **[1.5]**

3. How will you manage data rates in TDM? (CO-2) **[3]**

4. The minimum number of columns in a datagram, network is two; the minimum number of columns in a virtual-circuit network is four. Explain the reason for this. (CO-2) **[3]**

5. Ten sources, seven with a bit rate of 250kbps and three with a bit rate of 400kbps are to be combined using multilevel TDM with no synchronizing bits. Answer the following questions about the final stage of multiplexing: (CO-1) **[3]**

   a) What is the size of a frame in bits?

   b) What is the frame rate?

   c) What is the duration of a frame?

   d) What is the data rate?

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