

Roll No.....

CS-501 (GS)**B.E. V Semester**

Examination, December 2017

Grading System (GS)**Data Communicatoin***Time : Three Hours**Maximum Marks : 70*

- Note:** i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) A bit stream of binary data is given as 1110011011 draw the waveform for this sequence using NRZ-I NRZ-L, Manchester, Differential Manchester, AMI and Pseudoternary.
b) Discuss data transmission and modes.
2. a) Define constellation diagram and its significance in analog transmission.
b) Distinguish between multilevel TDM, multiple slot TDM and pulse stuffed TDM.
3. a) Define FHSS and explain how it achieves bandwidth spreading.
b) What are the two approaches to packet switching?
4. a) Discuss connection, specifications and configuration of EIA449 digital interface.
b) Distinguish between active and passive hubs.

5. a) Draw a hybrid topology with a star backbone and four ring networks.
b) What are the three major classes of guided media?
6. a) Enlist the advantages of optical fiber over twisted pair and coaxial cable.
b) How does sky wave propagation differ from line of sight propagation?
7. a) Discuss the concept of redundancy in error detection.
b) Construct the Hamming code for the bit sequence 10011101.
8. Write short notes on any two:
 - a) VDSL
 - b) Interleaved codes
 - c) ISDN
 - d) Bridges
