

Dr. Nafis U Khan

Roll No:.....

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST - 1 EXAMINATION FEBRUARY 2020

B.Tech VIII Semester

COURSE CODE: 11B1WCI836

MAX. MARKS: 15

COURSE NAME: Network Management

COURSE CREDITS: 03

MAX. TIME: 1 Hr

Note: All questions are compulsory. Assume the data wherever necessary.

- Q1. Explain the basic constituents of data communication system with the help of suitable block diagram. CO1 [4 Marks]
- Q2. (a) State the relation between signaling rate and transmission bandwidth in PCM system. CO2 [2 Marks]
- (b) What is the minimum signal-to-noise ratio, in decibels, that must be maintained in order to transmit a 600Kbps signal over a medium with a bandwidth of 20,000Hz? CO2 [3 Marks]
- Q3. (a) Define the following terms in relation to the error control coding: CO2 [3 Marks]
1. Hamming distance
 2. Linear cyclic code
 3. Convolutional code
- (b) Design a linear block code of minimum distance of 3 and message size of 4 bits. Also demonstrate its error detection and correction capabilities. CO2 [3 Marks]