

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- September 2016

M.Tech I Semester

COURSE CODE: 10M11CI112

MAX. MARKS: 15

COURSE NAME: ADVANCED COMPUTER NETWORKS

COURSE CREDITS: 3

MAX. TIME: 1Hr

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

1. Why do you need encoding of data before sending over a medium? [1 Marks]
2. What are the four possible encoding techniques? Give examples. [1 Marks]
3. Why does impulse noise have more effect on digital signals rather than on analog signals? [1 Marks]
4. List out all the layers of TCP/IP with its feature? [2 Marks]
5. Assuming there is no noise in a medium of $B = 4\text{KHz}$, determine channel capacity for the encoding level 4. [2 Marks]
6. A channel has $B = 10\text{ MHz}$. determine the channel capacity for signal-to-noise ratio 60 dB. [2 Marks]
7. Let us consider a transmission line between points 1 and 2 and let the energy strength at point 2 is $1/10$ of that of point 1. Then attenuation in dB is ? [2 Marks]
8. Give the Manchester line code and Differential Manchester code for the bit sequence: 1100110 [4 Marks]