JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2016

M. Tech 4th Semester (Electronics and Communication Engineering)

COURSE CODE 10M11EC112   MAX. MARKS: 15

COURSE NAME: Statistical Signal Processing

COURSE CREDITS: 03   MAX. TIME: 1 HR

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

Q. 1(a) Write the statement of Central Limit Theorem and prove it.

(b) What is the random variables. How is it useful for statistical signal processing? Explain with suitable example.

Q. 2(a) Define the Jointly Gaussian random variables and explain its several properties.

(b) What is the Demoivre-Laplace Theorem? How is it related to the Binomial random variable approximation?

Q. 3(a) Establish a relation between the conditional density function and conditional distribution function.

(b) Describe the Poisson approximation with suitable example.