

JAYPEE UNIVERSITY OF INFORMATRION TECHNOLOGY, WAKNAGHAT

TEST -1, EXAMINATIONS- Sept, 2017

B. Tech, ECE, VII Semester

COURSE CODE: 17B1WEC731

MAX. MARKS: 15

COURSE NAME: Time-Frequency Analysis and Its Application

COURSE CREDITS: 03

MAX. TIME: 1 Hrs

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

- Q.1. Write the order selection criteria of an autoregressive model for power spectrum estimation 2
- Q.2. Write the wiener khinchine theorem. 1
- Q.3. Explain Stationary, non-stationary, chirp and multi-component signals 2
- Q.4. Differentiate the parametric and non-parametric methods for spectral estimation. 2
- Q.5. What is the quality factor? , and also write quality factors for all non-parametric methods. 2
- Q.6. Tabulate the computational requirement of Bartlet, Welch, and Blackman tuckey method. 3
- Q.7. Define the short time Fourier transform, write its importance, and where is it useful? 2
- Q.8. What is the time-frequency analysis and where is it useful? 1