JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
TEST - 1 EXAMINATION, February 2020

B.Tech VIIIth Semester (ECE)

Course Code: 18B1WEC836   MAX. MARKS: 15
Course Name: Optimum Array Processing
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. Marks are indicated in square brackets against each question.

Q1. What is array processing and what is the significance of array factor?   [2]   [CO1]

Q2. Explain in brief: [5]   [CO1,CO2]

    a) Directivity

    b) Array Gain

    c) Spatially White Noise

    d) Sensitivity

    e) Tolerance factor

Q3. List the beam pattern parameters and explain any two of them in detail.   [3]   [CO1,CO2]

Q4. Develop the basic relationship between the array manifold vector, the weight vector and the beam pattern for uniform linear array.   [5]   [CO1,CO2]