Dr. Yugal Kumar.

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
(T-1 Examination Feb-2020)
B.Tech. 8TH Semester

COURSE CODE: 18BIWCI835   MAX. MARKS: 15

COURSE NAME: Design and Analysis of Multi Dimensional Data Structure

COURSE CREDITS: 4   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[CO1]   What are the different categories of multi dimensional data structure?   (3)
           How to arrange multi dimensional point in space?

Q.2[CO1]   How the kd tree is different from B tree and B$^+$ tree? Explain the building   (3)
           mechanism of kd tree.

Q.3[CO1]   What are the essential properties for the binary search tree? Construct a   (3)
           Binary Search Tree (BST) for the following sequence of numbers

           50, 70, 60, 20, 90, 10, 40, 100, 2, 64, 8

Q.4[CO2]   Explain the nearest neighbor concept with respect to kd tree.   (3)

Q.5 [CO2] What are the different searching queries applicable for kd tree data   (3)
           structure? Explain in detail.