

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

T-1 EXAMINATION, Feb 2018

B.Tech (BI) VI Semester

COURSE CODE: 16B11BI612

MAX. MARKS: 15

COURSE NAME: Datawarehousing and Mining in Bioinformatics

COURSE CREDITS: 04

MAX. TIME: 1Hr

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

1. Suppose we have the following 2-D data set: (3)

	A1	A2
X1	1.5	1.7
X2	2	1.9
X3	1.6	1.8
X4	1.2	1.5
X5	1.5	1.0

Consider the data as 2-D data points. Given a new data point, $x = (1.4, 1.6)$ as a query, rank the database points based on similarity with the query using Euclidean distance, Manhattan distance, supremum distance and cosine similarity.

2. Explain the principle of Hilbert Curve Visualization. How is it better than Pixel-Oriented Visualization? (3)
3. Explain the different types of clustering approaches. Elaborate the PAM and CLARANS methods. (4)
4. Distinguish between classification and regression, citing at least two examples of each. (3)
5. Explain the parallel coordinates and Chernoff faces techniques of visualization. (2)