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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- Feb 2019

B.Tech. (IT) VI Semester

COURSE CODE: 10B22CI622

MAX. MARKS: 15

COURSE NAME: Data Mining

COURSE CREDITS: 3

MAX. TIME: 1 Hr.

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

- Q1. CO-1 Describe whether or not each of the following jobs is a data mining task. [3]
(a) Sorting a student records based on student performance in examination.
(b) Predicting the student performance in final examination using past records.
(c) Monitoring the activities of a student for abnormalities.
- Q2. CO-2 Exemplify the types of attributes: Nominal, Ordinal, Interval and Ratio [3]
- Q3. CO-2 Suppose that the data for analysis includes the attribute age. The age values for the data tuples are (in increasing order) 13, 15, 16, 16, 19, 20, 20, 21, 22, 22, 25, 25, 25, 25, 30, 33, 33, 35, 35, 35, 35, 36, 40, 45, 46, 52, 70. [1]
(a) What is the mean of the data? What is the median? [1]
(b) What is the mode of the data? Comment on the data's modality (i.e., bimodal, trimodal, etc.). [1]
(c) Plot an equal-width histogram of width 10. [2]
- Q4. CO-3 A study is conducted to investigate the relationship between byte sent and bytes receive in web server access log. The data of the study is given in the table below. [5]

Byte Sent (X)	5	6	7	8	9
Byte Receive (Y)	8	10	12	14	16

- (a) Calculate the value of correlation coefficient and interpret its value
(b) Estimate the regression coefficients and hence write the equation of the estimated regression line.
(c) Draw a scatter plot and give comment.
(d) Predict the Byte Receive when the Byte Sent is 10.