



INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, NAGPUR
Department of Computer Science and Engineering
CSL 109: Introduction to Data & Analytics

Date: 19/12/2022 (Monday)
Time: 2:00 PM to 3:00 PM

Sessional-1 Examination
Semester -I

Max. Marks: 15

Duration: 1 Hours

Important Instructions:

- All the questions are compulsory.

1(a)	Demonstrate various types of data and associated method for collection of data. Take scenario of student information system for explanation of data collection method. <i>Primary secondary</i>	2 [CO1]
(b)	Give one suitable example of each: descriptive and predictive analytics. Which category does financial statement analysis fall under—descriptive or predictive? Justify the reason. <i>what is it? only 1 word</i>	3 [CO1]
2(a)	Illustrate the major tasks in data pre-processing? Take suitable example of any real data and show the complete steps of data pre-processing.	3 [CO1]
(b)	Using the binning method, partition the given data into 4 bins and perform smoothing according to smoothing by bin means, smoothing by bin median, and smoothing by bin boundaries. 24, 25, 26, 27, 28, 56, 67, 70, 70, 75, 78, 89, 89, 90, 91, 94, 95, 96, 100, 102, 103, 107, 109, 112.	2 [CO2]
3	Suppose that the data for analysis includes the attribute age. The age values for the data types are 13, 15, 16, 16, 19, 20, 20, 21, 22, 22, 25, 25, 25, 25, 25, 30, 33, 33, 35, 35, 35, 36, 40, 45, 52. Find: (a) Measures of central tendency (b) Measures of dispersion	3+2 [CO3]
