## JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT TEST -1 EXAMINATION- FEB-2023

COURSE CODE(CREDITS): 18B11CI613 (3)

MAX. MARKS: 15

COURSE NAME: Data Mining

COURSE INSTRUCTORS: Dr. Pardeep Kumar

MAX. TIME: 1 Hour

Note: All questions are compulsory. Marks are indicated against each question in square brackets.

- 1). Consider the following data: Age= {4, 8, 15, 21, 21, 24, 25, 28, 34}. Apply the following techniques for data transformation:
  - (i) Min Max Normalization with range {-5,5}
  - (ii) Z-Score Normalization
  - (iii) Normalization by decimal scaling

[CO-2][2+2+1]

- Q2. Explain IQR method to handle noise/outliers. Find the noise/outliers in the following attribute using IQR method: Age (10, 16, 11, 7, 4, 4, 4, 12, 17, 25, 14, 0). [CO-2] [2+3]
- Q3. Explain KDD Process in detail with suitable diagram. Explain hold out process and over fitting with suitable example. Suggest one method to get rid of over fitting.

[CO-1] [3+1+1]