



**In semester Assessment
ST- (Semester-IV)
Database Management System**

Branch: AIML

Div.: A

Duration: 1 hour

Date: 14/02/2022

Timing: 2.30 pm to 3:30 pm

Maximum Marks: 20

Instructions –

1. All questions are compulsory
2. Assume suitable data wherever necessary and state the assumptions made.
3. Diagrams / sketches should be given wherever necessary.
4. Use of logarithmic table, drawing instruments and non-programmable calculators is permitted.
5. Figures to the right indicate full marks.
6. Scan the answer sheet in sequence and upload the Pdf. Pdf should be named as ST_AIML_ Roll No_Subject abbreviation_Student Name

Q.1) Objective Questions (10M)

Solve any 10 questions out of 12. (Each question carries 1 Mark)

<https://forms.gle/hVsMai6zBFFfmSWu7>

Q2 a) Illustrate Asymptotic Notations with examples to each. [5 marks]

OR

Q2 b) Describe the characteristics of an algorithm. Differentiate algorithm and program [5 marks]

Q3 a) Explain insertion sort algorithm and estimate its best case and worst case time complexity. [5 marks]

OR

Q3 b) Perform binary search on list of elements to find the key element using divide and conquer and also derive its time complexity using recursion tree method.

[5 marks]