This question paper contains 2 printed pages]

## NY-191-2023

## FACULTY OF SCIENCE AND TECHNOLOGY

## M.Sc. (Second Year) (Third Semester) EXAMINATION NOVEMBER/DECEMBER, 2023

(New/CBCS Pattern)

COMPUTER SCIENCE

Paper-CS-303

(Data Mining and Data Warehousing)

(Saturday, 9-12-2023)

Time: 2.00 p.m. to 5.00 p.m.

Time—3 Hours

Maximum Marks—75

- N.B. := (i) All questions are compulsory.
  - (ii) Figures to the right indicate full marks.
  - (iii) Assume suitable data, if required.
  - (iv) Use of any electronic media such as mobile phone, digital diary and electronic calculator is not permitted.
- 1. Attempt the following:
  - (a) Define data mining. Explain the Data Mining Vs. Knowledge discovery in databases.

Or

- (b) Explain the term "Data Warehousing-the only viable solution". 8
- (c) Explain the web structure mining.

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|-----|------------------------|---|-------|
| 2.  | Atten                  | npt the following:  |       |
|     | (a)                    | Define Classification. Explain the distance based algorithms.       | 15    |
|     |                        | or of the left of the second  |       |
|     | ( <i>b</i> )           | What are Database/OLTP systems? Explain in detail.                  | 8     |
|     | (c)                    | Describe the neural network-based algorithm.                        | 7     |
| 3.  | Atten                  | npt the following:  | AF    |
|     | (a)                    | What is Clustering? Explain the parallel and distributed algorithms | . 15  |
|     |                        | Or BY ST  |       |
|     | ( <i>b</i> )           | Explain the Information Retrieval in Data Mining.                   | 8     |
|     | (c)                    | Describe the working of neural networks in Data Mining.             | 7     |
| 4.  | Attempt the following: |   |       |
|     | (a)                    | Define Web Mining. Explain the Web usage and Web content mining     | ;. 15 |
|     |                        |   |       |
|     | ( <i>b</i> )           | Explain the Hierarchical algorithms.                                | 8     |
|     | (c)                    | Explain the Decision Support Systems.                               | 7     |
| 5.  | Write                  | e short notes on (any three):                                       | 15    |
|     | (a)                    | Decision Tree   |       |
|     | ( <i>b</i> )           | Dimensional Modeling  |       |
|     | (c)                    | Data Warehouse Concept  |       |
|     | (d)                    | Basic Data Mining Task  |       |
|     | (e)                    | Web Search Engines.   |       |
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