21819 3 Hours / 100 Marks

Seat No.

Instructions:

- (1) All Questions are *compulsory*.
- (2) Answer each next main Question on a new page.
- (3) Illustrate your answers with neat sketches wherever necessary.
- (4) Figures to the right indicate full marks.
- (5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. (A) Attempt any THREE:

 $4 \times 3 = 12$

- (a) Define DSS and describe its ingredients.
- (b) List and explain benefits of datawarehousing.
- (c) What is meant by data cleaning? State its different techniques.
- (d) Describe need for OLAP & OLAP tools.

(B) Attempt any ONE:

 $6 \times 1 = 6$

- (a) Explain different categories and classes of DSS.
- (b) What is data reduction? State its different techniques.

2. Attempt any TWO:

 $8 \times 2 = 16$

- (a) Explain the need of data preprocessing and components of datawarehousing.
- (b) Describe concept description and data classification process.
- (c) List and explain OLAP operations in multidimensional data models.

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3. $4 \times 4 = 16$ Attempt any FOUR: Explain with example the need for datawarehosing. What is metadata and its significant role? (b) (c) Describe concept of hierarchy with suitable example. Describe the use of OLAP for datawarehousing. (d) (e) Explain Apriori algorithm. $4 \times 3 = 12$ 4. (A) Attempt any THREE: Explain DSS users in brief. Describe the multidimensional data model. (b) Describe basket analysis. (c) Describe the steps for knowledge discovery techniques. Attempt any ONE: $6 \times 1 = 6$ **(B)** Describe about data and Model Management. (a) Describe the benefits of datawarehousing. (b) 5. Attempt any TWO: $8 \times 2 = 16$ Describe the following schemas for multidimensional database: (i) (ii) Snowflakes Star (iv) Fact constellation measures (iii) Star join Explain about association rule classification. (b) (c) Define data mining and explain sequential mining with example. **6.** Attempt any FOUR: $4 \times 4 = 16$ State the term mining which is applied on world wide web. (a) (b) Explain following terms: **OLAP** (i) (ii) Mining text databases Explain constraint based association mining. (c) Describe mining descriptive statistical measures in large database. (d) List and explain issues regarding data predication. (e)