



# 17520

**21718**

**3 Hours / 100 Marks**

Seat No.

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- 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) *Assume suitable data, if necessary.*

- |  | <b>Marks</b> |
|--|--------------|
| <b>1. a) Attempt any three :</b>                                       | <b>12</b>    |
| i) Describe the need for data warehousing.                             |              |
| ii) Mention the significant role of meta data.                         |              |
| iii) Write a short note on mining text databases.                      |              |
| iv) What is concept description ?                                      |              |
| <b>b) Attempt any one :</b>  | <b>6</b>     |
| i) Define data warehouse and mention its characteristics.              |              |
| ii) What is data preprocessing ? Why data preprocessing is needed ?    |              |
| <b>2. Attempt any two :</b>  | <b>16</b>    |
| i) Explain data cleaning techniques of data warehouse.                 |              |
| ii) Describe the OLAP operations in the multi-dimensional data models. |              |
| iii) Explain Apriori algorithm giving suitable example.                |              |
| <b>3. Attempt any four :</b>   | <b>16</b>    |
| i) Define DSS and describe DSS knowledge base.                         |              |
| ii) Explain data reduction techniques of data warehouse.               |              |
| iii) Write a note on Mining WWW.                                       |              |
| iv) Describe about association rule mining.                            |              |
| v) Describe the benefits of data warehousing.                          |              |

**P.T.O.**



4. a) Attempt **any three** : 12
- i) Describe the categories and classes of DSSs.
  - ii) Mention and describe the OLAP tools.
  - iii) Draw the block diagram of data warehouse architectural components and state their function.
  - iv) Describe the concept hierarchy generation for numeric and categorical data.
- b) Attempt **any one** : 6
- i) Explain about market basket analysis.
  - ii) Explain about operational data stores.
5. Attempt **any two** : 16
- i) Explain the schema for multi-dimensional database :
    - a) Stars
    - b) Snowflakes.
  - ii) Explain the following :
    - a) Constraint based association mining.
    - b) Sequential mining.
  - iii) Describe the innovative techniques for knowledge discovery.
6. Attempt **any four** : 16
- i) Explain association rule classification.
  - ii) Explain data integration in data warehouse.
  - iii) Describe star join and fact constellation measures.
  - iv) Illustrate mining descriptive statistical measure in large data bases.
  - v) What is classification and prediction ?
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