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16172

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) *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** of the following : **(4×3=12)**
 - a) Describe any four needs of data warehousing.
 - b) What is data cleaning technique ? Explain any one technique in detail.
 - c) Describe multidimensional data model.
 - d) What is concept description ?
- b) Attempt **any one** of the following : **(6×1=6)**
 - i) Describe any six characteristics of data warehouse.
 - ii) What is data reduction ? State its different techniques.
2. Answer **any two** of the following : **(8×2=16)**
 - a) Describe discretization and concept of hierarchy generation for numeric and categorical data.
 - b) Describe the following schemas for multidimensional database.
 - 1) Star
 - 2) Snowflakes
 - c) State the association rules in data mining. Write applications of each rule.
3. Answer **any four** of the following : **(4×4=16)**
 - a) Describe decision support system.
 - b) Explain benefits of data warehousing.
 - c) Describe need for OLAP.
 - d) Describe market basket analysis.
 - e) Describe the method of data preprocessing with its block diagram.

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4. a) Answer **any three** of the following : (4×3=12)
- i) Explain categories and classes of DSSs.
 - ii) Explain mining text databases.
 - iii) Draw block diagram of data warehouse architecture and list its components.
 - iv) Describe data integration with an example.
- b) Attempt **any one** of the following : (6×1=6)
- i) Describe the Apriori algorithm.
 - ii) Explain operational and informational data.
5. Attempt **any two** of the following : (8×2=16)
- a) Describe four different OLAP operations in the multidimensional model with neat diagram.
 - b) State the following mining techniques.
 - i) Constraint based association mining
 - ii) Sequential mining.
 - c) Define knowledge discovery and describe any six innovative techniques for knowledge discovery.
6. Answer **any four** of the following : (4×4=16)
- a) Describe mining in World Wide Web.
 - b) Describe the significant role of meta data.
 - c) Describe concept of hierarchy with an example.
 - d) Describe mining descriptive statistical measures in large databases.
 - e) Describe issues regarding classification and predication.
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