

[Total Marks : 80

(3 Hours)

- N.B. : 1) Question No.1 is compulsory.
2) Attempt any four from the remaining six questions.

1. (a) Briefly compare any three following concepts (12)
 - A. Data warehouse and Data mart.
 - B. OLTP and OLAP.
 - C. ROLAP and MOLAP.
 - D. Bloom Join and Semi Join.
- (b) Describe how the scanning, sorting and join operations can be parallelized using Data partition techniques. (08)
2. (a) Explain KDD process steps in detail with suitable diagram. (07)
- (b) Explain complex and structure data types in ORDBMS. (08)
3. (a) What is Association Rule mining? Explain Apriori Algorithm with example. (07)
- (b) What is data staging? Explain ETL process in data warehouse with example. (08)
4. (a) Explain 2PC protocol in details with suitable example. (07)
- (b) Explain major functions of OLAP with examples.. (08)
5. (a) What are the challenges in implementing ORDBMS? Explain them briefly. (07)
- (b) Describe K-Means clustering with suitable example. (08)
6. (a) Explain Star schema, Snowflake schema and Fact constellation with suitable examples. (07)
- (b) what is a classification technique? Describe Decision Tree in detail. (08)
7. Write Short Notes on any three :- (15)
 - a) Data quality
 - b) Parallel DB Architectures
 - c) Web usage mining
 - d) Meta data
 - e) Multimedia database