

**SARDAR PATEL UNIVERSITY**

M.Sc. (Information Technology)

Semester – III External Examinations (NC)

PS03EINT02 (Data Mining and Data Warehousing)

21<sup>st</sup> April, 2018 (Saturday)

Time: 10:00 AM to 01:00 PM

Max. Marks: 70

- Q-1 Choose most appropriate option for the following: [08]
1. \_\_\_\_\_ takes data from source systems and makes it available to the data warehouse.  
A. Data manipulation  
B. Data extraction  
C. A and B both  
D. None of these
  2. \_\_\_\_\_ is a subject-oriented, integrated, time-variant, nonvolatile collection of data in support of management decisions.  
A. Data Mining  
B. Text Mining  
C. Web Mining  
D. None of these
  3. In \_\_\_\_\_ older data is removed from the system in a format that allows it to be quickly restored if required.  
A. Normal backup process  
B. Partitioning  
C. Self-learning  
D. None of these
  4. The \_\_\_\_\_ is the system component that performs all the operations necessary to support the query management process.  
A. Load manager  
B. Warehouse manager  
C. Query manager  
D. None of these
  5. Create \_\_\_\_\_ to speed up the common queries.  
A. Associations  
B. Classifications  
C. Generalizations  
D. None of these
  6. \_\_\_\_\_ is the information that is used to analyze the elemental transaction.  
A. Fact data  
B. Dimension data  
C. A and B  
D. None of these
  7. \_\_\_\_\_ are separate operations that occur within the confines of the SQL statement itself.  
A. Inter-statement operations  
B. Intra-statement operations  
C. Extra-statement operations  
D. None of these

8. \_\_\_\_\_ is a backup that is taken while the database is completely shut down.
- A. Hot backup
  - B. Online backup
  - C. Cold backup
  - D. None of these

**Q-2 Write answers in short: (ANY SEVEN) [14]**

- a. Differentiate between data mining tools and query tools.
- b. Explain data warehousing in brief.
- c. Explain importance of backup process within a data warehouse.
- d. Define: metadata. Give its example.
- e. What is fact data? Explain it in brief.
- f. Write an example of starflake schema.
- g. Distinguish between fact table design and summary table design.
- h. What is SLA? Explain it in brief.
- i. "The data warehouse is part of OLTP", justify your answer.

**Q-3 A Discuss various application areas of data mining. [06]**

**B Write in detail about project planning and management life cycle. [06]**

**OR**

**B Explain benefits of data mining in marketing. [06]**

**Q-4 A Explain clean and transform data process within a data warehouse. [06]**

**B Write a short note on load manager. [06]**

**OR**

**B Discuss query management process within a data warehouse. [06]**

**Q-5 A Discuss summary information in detail taking suitable example. Also write benefits of it. [06]**

**B Write a short note on vertical partitioning. [06]**

**OR**

**B Write a detail note on Advanced Encryption Standard. [06]**

**Q-6 A List types of system managers. Explain ANY TWO of them in detail. [06]**

**B Explain server hardware requirement of data warehouse environment. [06]**

**OR**

**B Write a short note on security requirements for data warehouse. [06]**

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(2)