[A-31]

SARDAR PATEL UNIVERSITY
M.Sc. (Information Technology)
Semester – III External Examinations
PS03EINT02 Data Mining and Data Warehousing
30th April, 2015

Time: 2:30 p.m. to 5:30 p.m.   Max. Marks: 70

Q1. Choose the most appropriate option for each question: [8]

a. A self-learning computer can generate _____ itself, enabling it to carry out new tasks.
- A) Programs
- C) Forms
- B) Databases
- D) None of these

b. Decision support requires _____ which operational databases do not typically maintain.
- A) Current data
- C) A and B both
- B) Past data
- D) None of these

c. _____ is the exploration and analysis of large quantities of data in order to discover meaningful patterns and rules.
- A) Data warehousing
- C) Data marting
- B) Data mining
- D) None of these

d. The database size of OLAP is _____.
- A) 100 TB
- C) 100 GB-TB
- B) 100 MB-GB
- D) None of these

e. Creation of _____ is important to speed up the common queries.
- A) Aggregation
- C) Classification
- B) Association
- D) None of these

f. The _____ is the system component that performs all the operations necessary to support the query management process.
- A) Query manager
- C) Warehouse manager
- B) Load manager
- D) None of these

g. A _____ is a backup that is taken while the database is completely shut down.
- A) Historical backup
- C) Complete backup
- B) Current backup
- D) None of these

h. _____ is a kind of system that has responsibilities to the operations of the business.
- A) Dead system
- C) Mission critical system
- B) 24X7 system
- D) None of these

Q2. **Answer the following questions (Any Seven):** [14]
a. Explain in brief about data mining tools.
b. What is Data warehouse? How it is different from operational database?
c. Explain the terms: (i) project planning and (ii) Project management
d. Draw architecture of data warehouse.
e. List types of horizontal partitioning.
f. Explain need of creating a temporary table first before designing structure of actual data warehouse.
g. Discuss need of tools to direct a data warehouse.
h. Explain in brief about server management.
i. Explain expenditure of data marting in short.

Q3. **Answer the following questions:**
a. Discuss process flow within a data warehouse taking suitable example. [6]
b. Write a short note on need of data mining. [6]
OR
b. Discuss project life cycle in Detail. [6]

Q4. **Answer the following questions:**
a. Write a short note on metadata. [6]
b. Discuss architecture of a load manager in detail. [6]
OR
b. Distinguish between data mart and data warehouse. Explain data mart in detail with diagram. [6]

Q5. **Answer the following questions:**
a. What is vertical partitioning? Explain it taking suitable examples. [6]
b. List various steps of designing summary tables. Explain each step in one or two lines. [6]
OR
b. Write a short note on the starflake schemas. [6]

Q6. **Answer the following questions:**
a. What is parallel query? Explain how does parallel query work? [6]
b. Explain network hardware architecture and its management. [6]
OR
b. Write a short note on Symmetric Multi-Processing. [6]

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