S0236 / S0290 DATAWAREHOUSING. Sem VI

T4IT / 18

Q. P. Code: 08221

(Time: $2\frac{1}{2}$ hours) **[Marks: 75]**

Please check whether you have got the right question paper.

N. B.: (1) **All** questions are **compulsory**.
(2) Make **suitable assumptions** wherever necessary and **state the assumptions** made.
(3) Answers to the **same question** must be **written together**.
(4) Numbers to the **right** indicate **marks**.
(5) Draw **neat labeled diagrams** wherever necessary.
(6) Use of **Non-programmable** calculator is allowed.

1. Attempt *any two* of the following: **10**

a. What are operational databases? Explain following characteristics of data in a data warehouse.
   i) Subject-oriented
   ii) Integrated
   iii) Time-variant
   iv) Non-volatile

b. Explain virtual data warehouse and its advantages.

c. Explain star schema model in relational implementation of data warehouses.

d. What is data aggregation? Explain granularity of facts.

2. Attempt *any two* of the following: **10**

a. Explain about data objects and data object editor of Oracle Warehouse Builder (OWB).

b. List various components of OWB. Explain major functions of design center.

c. What is meant by importing metadata? Explain steps to import metadata from flat files.

d. What is a listener? How is it configured?

3. Attempt *any two* of the following: **10**

a. Explain about dimensional modeling of data warehouse

b. What is the use of canvas area in data object editor? Also explain the explorer and palette windows.

c. Explain various steps to create a dimension using dimension wizard.

d. What are surrogate keys? Explain the need of surrogate keys with example.

4. Attempt *any two* of the following: **10**

a. What is joiner operator? Explain steps to use it in a mapping.

b. What is the role of cube operator in mapping? Discuss various attributes in cube operator.

[TURN OVER]

c. Describe aggregator and filter data flow operators.
d. Write short notes on the following:
   i) Extract, Transform and Load
   ii) Source to target map

5. Attempt *any two* of the following: **10**

a. What is expression operator? Explain TO_CHAR() functions with proper syntax and example.
b. Write a detailed note on data object validation in OWB.
c. What is constant operator? Explain steps to create constants in mapping.
d. Explain various functions of control center manager.

6. Attempt *any two* of the following: **10**

a. Explain clipboard and recycle bin features of oracle warehouse builder.
b. What is Metadata Loader? What are its benefits?
c. Explain data density and data sparsity with example.
d. Explain ROLAP and its merits.

7. Attempt *any three* of the following: **15**

a. Differentiate between OLTP database and data warehouse database.
b. What is Oracle Warehouse Builder? Explain the significance of projects and modules in it.
c. Why time dimension is important in data warehouse? Explain various steps to create it through time dimension wizard.
d. Write a detailed note on staging and its benefits.
e. Describe SUBSTR transformation function.
f. What are snapshots? Explain full snapshot and signature snapshot.
