Q. P. Code: 36137

(2½ hours)

[Total Marks: 75]

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** calculators is **allowed**.

1. **Attempt _any two_ of the following:** 10
   a. Differentiate between OLTP Database and Data Warehouse Database.
   b. Write a short note on Dimensional Model.
   c. Explain the different types of developing strategies to be considered before developing a Data Warehouse.
   d. Define Data Warehouse. Explain its characteristics.

2. **Attempt _any two_ of the following:** 10
   a. What is a Design Center? Explain the three main windows of it.
   b. Explain with the help of diagram OWB components and architecture.
   c. List and explain the steps to configure the Repository and Workspace.
   d. What is a Module? Write the steps to create Oracle Database Module.

3. **Attempt _any two_ of the following:** 10
   a. Explain the different tabs of the Cube Editor in the Data Object Editor.
   b. Write a note on OWB design objects.
   c. Explain the four characteristics that have to be defined for every dimension.
   d. Write the steps to create a Time dimension using Time dimension wizard.

4. **Attempt _any two_ of the following:** 10
   a. What is Staging? Explain the factors on which staging depends.
   b. Define Constraint. Explain types of Constraints.
   c. Explain any five Source and Target operators.
   d. What is ETL? Explain the manual ETL process.

5. **Attempt _any two_ of the following:** 10
   a. What is Validation? Explain the process of validation in Design Center.
   b. Explain any three transformation operators.
   c. Explain the three main default operating modes of a mapping.
   d. Explain the features and benefits of Oracle Warehouse Builder.

6. **Attempt _any two_ of the following:** 10
   a. Explain the term Data Sparsity and Data Explosion with example.
   b. What is a Snapshot? Explain its type.
   c. Explain the following features of Integrated ROLAP.
      i) Parallelization.   ii) Data Partitioning
   d. Explain the role of Recycle Bin in OWB.

[TURN OVER]

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7. **Attempt *any three* of the following:** 15
a. Explain the three levels of Data Redundancy to be considered while creating a Data Warehouse.
b. What is a Listener? Write down the steps to configure a Listener.
c. Explain the following.
i) Surrogate identifier and Business identifier.
ii) Birds eye view window.
d. Explain any three Data Flow Operators of OWB.
e. Explain the Object Details Window of Control Center Manager.
f. Explain the different Matching and Synchronizing Strategies to be used while Synchronizing objects.