

**(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:**

- State and justify the characteristics of a Data Warehouse with suitable examples.
- Differentiate OLTP and OLAP.
- Discuss the different types of facts with respect to measures stored in the fact table in a Data Warehouse.
- Why a dimension is called Slowly changing dimension? Explain.

**10**

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

- What is the relationship between OWBSYS and Oracle Warehouse Builder?
- i) Name and define the utility that has to be configured before creating an Oracle database.  
ii) Draw a neat diagram that illustrates the various components of OWB.
- What is the significance of HS parameters in the heterogeneous service configuration file?
- Explain the term module with reference to design of a DW in a Design Center.

**10**

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

- Explain the relational implementation of a dimensional model – Star Schema.
- Name and explain the objects that are relational and dimensional objects in an Oracle module.
- Every dimension has four characteristics that have to be defined in OWB. What are they?
- Explain the tabs Name, storage, Attributes, Levels and Hierarchies in Editor Window of any object that is currently being edited.

**10**

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

- What is ETL? Explain with an example.
- Explain the data flow operators
  - Aggregator
  - Joiner
  - Expression
- What is set in the Keys tab in the Table Editor window in OWB?
- Explain the Indexes and Partitions tab in the Table Editor.

**10**

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

- Discuss any three transformation operators used in ETL processing.
- What is the role of a LOOKUP operator in a mapping?
- Explain Full and Intermediate generation styles.
  - Validation will result in one of the three possibilities. What are they?
  - Mention the five default operating mode of the map

**10**