**QP Code : 26922**

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

2. **Attempt** *any two* **of the following:**         10
  a.  What is the relationship between OWBSYS and Oracle Warehouse Builder?
  b.  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.
  c.  What is the significance of HS parameters in the heterogeneous service configuration file?
  d.  Explain the term module with reference to design of a DW in a Design Center.

3. **Attempt** *any two* **of the following:**         10
  a.  Explain the relational implementation of dimensional model – Star Schema.
  b.  Name and explain the objects that are relational and dimensional objects in an Oracle module.
  c.  Every dimension has four characteristics that have to be defined in OWB. What are they?
  d.  Explain the tabs Name, storage, Attributes, Levels and Hierarchies in Editor Window of any object that is currently being edited.

4. **Attempt** *any two* **of the following:**         10
  a.  What is ETL? Explain with an example.
  b.  Explain the data flow operators
      i)      Aggregator
      ii)     Joiner
      iii)    Expression
  c.  What is set in the Keys tab in the Table Editor window in OWB?
  d.  Explain the Indexes and Partitions tab in the Table Editor.

5. **Attempt** *any two* **of the following:**         10
  a.  Discuss any three transformation operators used in ETL processing.
  b.  What is the role of a LOOKUP operator in a mapping?
  c.  Explain Full and Intermediate generation styles.
  d.  i)    Validation will result in one of the three possibilities. What are they?
      ii)   Mention the five default operating mode of the mapping.

**HY-Con. 7017-16.**

**[TURN OVER**

6. **Attempt _any two_ of the following:** 10
a. What are the different operations that can be performed on a snapshot of an object that is created?
b. What happens if, let's say for example, a table definition is updated after we have defined it and created a mapping or mappings that included it?
c. What is the difference between ROLAP and MOLAP?
d. Illustrate data explosion with reference to data storage in Data Warehouse.

7. **Attempt _any three_ of the following:** 15
a. Explain Snow Flake Schema with an example.
b. The first step required in making use of Oracle Heterogeneous Services used to access a Non-Oracle database is to create an ODBC connection. How is this connection established?
c. Define and explain the term staging with respect to ETL processing.
d. Differentiate Surrogate identifier and Business identifier with suitable examples.
e. The process of building the DW from the model created in the Warehouse Builder involves Deploying and Executing. Discuss.
f. Explain the change management related tool - the Metadata Loader.

_____