

**GUJARAT TECHNOLOGICAL UNIVERSITY****MCA INTEGRATED– SEMESTER-VII EXAMINATION –SUMMER-2020****Subject Code:4470622****Date:06-11-2020****Subject Name:Data Warehousing****Time:10:30 AM to 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 (a)** Say TRUE or FALSE with justification. **07**
- i. Data in the data warehouse is more heterogeneous than homogeneous.
  - ii. A star schema has one-to-many type of relationship between a dimension and fact table.
  - iii. Record cannot be updated in data warehousing.
  - iv. Data cleaning is large collection of data mostly stored in a computer system.
  - v. Multidimensional OLAP technology is suited for data mart processing.
  - vi. A stop word is a word that occurs so frequently as to be meaningless to the document.
  - vii. Keeping only summary data in an EIS is a good choice.
- (b)** Explain the challenges associated with naturally evolving architecture. **07**
- Q.2 (a)** What do you mean by data granularity? Explain the concerns of granularity in a data warehouse. **07**
- (b)** Explain the physical design techniques that are especially relevant to the data warehouse environment. **07**
- OR**
- (b)** What are profile records? Explain the concept of creating multiple profile records along with appropriate example. **07**
- Q.3 (a)** Explain how overflow storage is used and managed in a data warehouse. Also, describe the software support required to make storage overflow possible. **07**
- (b)** Explain the concepts of variable-length data, lock management, index-only processing and fast restore in the context of data warehouse. **07**
- OR**
- Q.3 (a)** Write a short note on midlevel data model. **07**
- (b)** What is a multidimensional DBMS? Compare multidimensional DBMS and data warehouse. **07**
- Q.4 (a)** What is EIS? State the uses of EIS. **07**
- (b)** Explain the star and snowflake structures in detail with example. **07**
- OR**
- Q.4 (a)** What do you mean by independent data mart? State its advantages and disadvantages. **07**
- (b)** Suppose that a data warehouse consists of the four dimensions *time*, *store*, *customer* and *rental item*, and the two measures *count* and *charge*, where *charge* is the fee that customer has to pay for late. Design Star schema and snowflake schema model **07**
- Q.5 (a)** Explain the concept of probabilistic match in brief along with appropriate example. **07**

(b) Explain the terms “granularity manager” and “ODS”. Explain their importance in the interaction between the web and data warehouse environments. **07**

**OR**

**Q.5** (a) Explain the issues that may arise out of an effort to match structured and unstructured data based on text. **07**

(b) What is a snapshot? Explain various triggers of a snapshot in brief. **07**

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