Seat No.: _____ Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA – SEMESTER – III • EXAMINATION – SUMMER 2018

Subject Code: 3630011 **Date: 29-May-2018**

Subject Name: Data Warehousing

Time: 02.30 pm to 5.00 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)**	What is data warehouse? Explain the salient characteristics of data warehouse with suitable examples.	**07**
	(b)	Explain the typical process of building a data warehouse.	**07**
Q.2	**(a)**	What do you mean by granularity in data warehouse? Explain the levels of granularity.	**07**
	(b)	Why we need to build data mart? List the advantages and disadvantages of data mart.	**07**
		OR	
	(b)	Differences between operational database systems and data warehouses.	**07**
Q.3	**(a)**	Write a short note on: data homogeneity and heterogeneity.	**07**
	(b)	What is meta data? How to manage reference tables in a data warehouse?	**07**
		OR	
Q.3	**(a)**	Write a short note on: direct and indirect access of data warehouse data.	**07**
	(b)	What is transformation and integration in data warehouse? what kind of functionality is required as data passes from the operational, legacy environment to the data warehouse environment?	**07**
Q.4	**(a)**	How data warehouse can be useful in an airline commission calculation system? Explain in detail.	**07**
	(b)	Explain the different OLAP operation with suitable examples.	**07**
		OR	
Q.4	**(a)**	How data warehouse can be useful in a retail personalization system? Explain in detail.	**07**
	(b)	Describe Executive Information System (EIS) with its potential. What is the application of Drill-down analysis?	**07**
Q.5	**(a)**	Discuss and describe the various schematic representations in multidimensional model.	**07**
	(b)	What are the parameters to be consider while moving data from the web to the data warehouse?	**07**
		OR	
Q.5	**(a)**	Explain the snowflake structures? Also, give the difference between star join and relational structure.	**07**
	(b)	Write a short note on: self-organizing map (SOM).	**07**

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