

**Birla Institute of Technology & Science, Pilani**  
**Work-Integrated Learning Programmes Division**  
**First Semester 2018-2019**

**Mid-Semester Test**  
**(EC-2 Regular)**

Course No. : CSI ZG515  
Course Title : DATA WAREHOUSING  
Nature of Exam : Closed Book  
Weightage : 35%  
Duration : 2 Hours  
Date of Exam : 30/09/2018 (AN)

No. of Pages	= 1
No. of Questions	= 6

Note:

1. Please follow all the *Instructions to Candidates* given on the cover page of the answer book.
2. All parts of a question should be answered consecutively. Each answer should start from a fresh page.
3. Assumptions made if any, should be stated clearly at the beginning of your answer.

Q.1. Provide brief answers to following questions [(5 X 2 marks) – 10]

- (a) What is ODS?
- (b) What are Non-additive facts?
- (c) Compare and contrast Type 2 and Type 3 SCD (slowly changing dimensions)
- (d) What is the difference between ER Modeling and Dimensional Modeling?
- (e) What is a conformed dimension?

Q.2. What is a cube? What do drill down, roll up, slice and dice mean? [3]

Q.3. Discuss how data marts differ from data warehouses and identify the main reasons for implementing a data mart. [3]

Q.4. Define Star and Snowflake schemas. List relative advantages of each [4]

Q.5. Mention the approach of Bill Inmon and Ralph Kimball. What are the advantages of their approach? [5]

Q.6. A big retail business chain have 500 grocery stores spread over a 25 states. Under each state they have around 4 regions . Each of the stores has a full complement of departments, including grocery, dairy, meat, milk, bakery, health items, beauty items and garments. Each store has roughly 50,000 individual products on its shelves. They have around 500 employees in each store. They introduce various promotional activities during each festive season in individual location. Identify the dimension with attribute for the above scenario. Also identify the fact along with attributes. Also draw the star schema. [10]

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