



DHARMSINH DESAI UNIVERSITY, NADIAD
FACULTY OF TECHNOLOGY
B.TECH. SEMESTER VII IT

SUBJECT: (IT-704) Data Analysis & Information Extraction

Examination	: First sessional	Seat No.	: _____
Date	: 04/08/2016	Day	: Thursday
Time	: 1:15 to 2:30	Max. Marks	: 36

INSTRUCTIONS:

1. Figures to the right indicate maximum marks for that question.
2. The symbols used carry their usual meanings.
3. Assume suitable data, if required & mention them clearly.
4. Draw neat sketches wherever necessary.

Q.1 Do as directed.

- (a) Explain why the term data mining is a misnomer. Give an appropriate example. [2]
- (b) Describe the terms spatial databases and temporal databases in brief. [2]
- (c) How do you find pattern is interesting or not? Explain with an example. [2]
- (d) Why do we need the pre-processing? Explain with an example. [2]
- (e) Calculate the number of cuboids for the cube that has 10 dimensions and 4 levels. [2]
- (f) What is metadata in data warehousing? And for which functional areas metadata is required? [2]

Q.2 Attempt *Any Two* from the following questions. [12]

- (a) Compare the OLTP with OLAP in details. [6]
- (b) Explain the KDD process in brief. Give an appropriate example. [6]
- (c) Suppose that profits at different branches of All Electronics for the year 1999 covers a wide range, from -\$351,976.00 to \$4,700,896.50. A user wishes to have a concept hierarchy for profit automatically generated. For improved readability, we use the notation $(l...r]$ to represent the interval $(l, r]$. For example, $(-\$1,000,000... \$0]$ denotes the range from $-\$1,000,000$ (exclusive) to $\$0$ (inclusive). Use the 3-4-5 rule for the automatic construction of a numeric hierarchy. [6]

- Q.3**
- (a) Identify dimensions and measures. Draw star schema diagram and 3-D CUBE for University management system. [6]
 - (b) Define various strategies for the numerosity reduction.. Explain each one with example. [6]

OR

- Q.3**
- (a) Explain how based on the different architecture designs, a DM system can be integrated with DB/DW system. [6]
 - (b) Identify dimensions and measures. Draw star schema diagram and 3-D CUBE for Hospital management system. [6]