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RF-3747-48

M. Sc. (Bio-Informatics) (Sem. - IV) Examination

April / May – 2010

405 - Data Warehouse & Data Mining

Time : **3** Hours] [Total Marks : **70**

RF-3747

Instructions :

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ **M. SC. (BIO-INFORMATICS) (SEM. - 4)**

Name of the Subject :

☛ **405 - DATA WAREHOUSE & DATA MINING**

☛ Subject Code No. : **3 7 4 7** ☛ Section No. (1, 2,.....) : **1**

Seat No. :

Student's Signature

1 Attempt any **three** **21**

(a) Expain star schema for data warehouse taking practical example. Compare it with snowflake schema.

(b) Discuss applications of Time Series analysis as data mining techniques taking proper example.

(c) Define : data reduction. Describe: Dimensionality Reduction.

(d) Define : Data Warehouse. Explain its characteristics.

2 Attempt any two : **14**

(a) Identify and describe the phases in the KDD process. How does KDD differ from data mining?

(b) Write in brief about Relational OLAP, Multidimensional OLAP, Hybrid OLAP.

(c) Describe Genetic algorithm and K-Nearest Neighbour algorithm.

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3 (a) Write a note on Decision Tree algorithm including concept of decision tree induction, attribute selection measure and tree pruning. **10**

OR

(a) Compare the following concepts. You may use an example to explain your point(s). Snowflake schema, galaxy schema, starnet query model.

(b) Describe : OLAP operations in the Multidimensional Data Model. **6**

(c) Write a note on pattern class. **4**

4 (a) Define : Data cube, dimensions, dimension table, fact table. Describe Multidimensional Data model using proper example. **7**

(b) Write a note on Association rule mining with proper example. **8**

OR

(b) Define: OLTP and OLAP. Compare : OLTP and OLAP. **8**
