$\boxed{\text{BICS-020}}$

BTCSVI

Term-End Examination

June, 2012

BICS-020 : DATA WAREHOUSING AND MINING

Time : 3 hours   *Maximum Marks : 70*

Note :   *Answer any seven questions.*

Assume suitable missing data, if any.

1. (a)   What kind of data mining can be performed   5
        on relational databases ?   Explain with
        suitable example.

    (b)   Differentiate between loose coupling and   5
        semitight coupling.

2. (a)   What is data mining ?   Describe the steps   5
        involved in data mining when viewed as a
        process of knowledge discovery.

    (b)   How is data warehouse different from a   5
        database ?   Explain with suitable example.

3. (a)   Differentiate operational data base and data   5
        mart.

    (b)   Define data cube with examples.   5

4. (a) Describe back up and archive process of a data warehouse.   5

(b) Describe star schema with suitable example.   5

5. (a) What activities need to be done in capacity planning for a data warehouse consolidation project ?   5

(b) Define the term : Smoothing, Aggregation, Generalization, Normalization and feature construction in respect of data transformation concept.   5

6. (a) Given mean and standard deviation for the attribute income are Rs. 54,000/- and Rs.16,000/- respectively. A value of Rs. 73,600/- to be transformed. Find the z-score normalisation for it.   5

(b) Define Data scrubbing tools and Data auditing tools with examples.   5

7. (a) How do association rules differ from traditional production rules ? Explain.   5

(b) Explain Apriori Algorithm with examples.   5

8. (a) List the types of data used in cluster analysis.   5

(b) How can generalization be performed on complex structure-valued data ? Explain.   5

9. (a) Define 'Aggregation' and 'Approximation'   5
   with respect to spatial data.

   (b) What kinds of methods can be applied to   5
   mining the data in text databases ? Explain
   with suitable examples.

10. Write short notes on *any two* :   2x5=10

   (a) Mining multilevel association rules for
   transactional databases

   (b) Architecture of data mining system

   (c) Metadata