B.Tech. – VIEP – COMPUTER SCIENCE AND ENGINEERING (BTCSVI)

Term-End Examination

□□4 1 ᘔ   **December, 2016**

BICS-020 : DATA WAREHOUSING AND MINING

Time : 3 hours   *Maximum Marks : 70*

Note : *Attempt any **seven** questions. Assume suitable missing data, if any. All questions carry equal marks.*

1. (a) What do you mean by subject oriented, integrated, time-variant and non-volatile collection of data in a data warehouse ?   5

    (b) Explain the architecture of a data warehouse with a neat diagram.   5

2. (a) What are the different primitives by which a data mining query can be defined ?   5

    (b) What are multilevel association rules ? Write down the different approaches to mining multilevel association rules.   5

3. (a) Differentiate between loose coupling and semi-tight coupling.   5

    (b) Differentiate between an operational database and a data mart.   5

4. (a) Describe the backup and archive process of a data warehouse. *5*

    (b) Define data cube with examples. *5*

5. (a) Define the terms Smoothing, Aggregation, Generalization, Normalization and Feature construction with respect to data transformation concept. *5*

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

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

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

7. (a) Explain Market Basket Analysis. *5*

    (b) What do you mean by relational database, traditional database and advanced database ? *5*

8. (a) List and describe any four primitives for specifying a data mining task. *5*

    (b) Briefly explain about data cleaning. *5*

9. (a) Differentiate between OLTP and OLAP. *5*

    (b) What is dimension modelling ? Explain. *5*

10. Write short notes on any *two* of the following : *5+5=10*

    (a)   Metadata

    (b)   Hypercubes

    (c)   ETL Process of Data Warehouse

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