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MCA552

Fifth Semester MCA Degree Examination, Dec. 07 / Jan. 08
Data Mining and Warehousing

Time: 3 hrs. Max. Marks:100

Note : ***Answer any FIVE full questions.***

1 a. Write and explain Inman's definition of a data warehouse. **(04 Marks)**
b. Differentiate operational data base system and a data warehouse. **(06 Marks)**
c. With a neat diagram, explain three – tire data warehousing architecture. **(10 Marks)**

2 a. Explain the following concepts using an example : i) Snow flake schema ii) Fact constellation schema. **(10 Marks)**
b. Explain how data warehousing and OLAP relate to date mining using the integrated OLAM and OLAP architecture. **(10 Marks)**

3 a. Why should data be preprocessed? Explain the steps involved in data transformation. **(10 Marks)**
b. Describe why concept hierarchies are useful in data mining. Discuss the DMQL syntax for concept hierarchy specification. **(10 Marks)**

4 a. What is association rule mining? Explain the Apriori Algorithm to find frequent item sets. **(12 Marks)**
b. Explain the different approaches used in multilevel association rule mining. **(08 Marks)**

5 a. Explain how classification is done by decision tree induction. **(12 Marks)**
b. What is Prediction? Give an account on the regression methods used in prediction. **(08 Marks)**

6 a. Explain the K – Means method and K – Mediods classification and partitioning methods. **(12 Marks)**
b. Explain the "Hierarchical Clustering Using Representative" (CURE) using example. **(08 Marks)**

7 a. Explain the Statistical and Neural Network approach for model based clustering methods. **(10 Marks)**
b. Give the distance based outlier detection technique methods. **(10 Marks)**

8 a. Explain the application of data mining for financial data analysis. **(10 Marks)**
b. How do you choose a good data mining system? **(10 Marks)**

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