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05SCS242

Second Semester M.Tech Degree Examination, June - July 2009

Data Warehousing and Mining

Time: 3 hrs. Max. Marks:100

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

1 a. Differentiate between operational data and informational data. **(06 Marks)**
b. Describe two tier data warehouse architecture and three tier data warehouse architecture. **(08 Marks)**
c. Elaborate on the issues to be dealt with by data sourcing, cleanup, extract, transformation and migration tools. **(06 Marks)**

2 a. What are the guidelines and requirements for selecting OLAP systems? **(07 Marks)**
b. Explain ROLAP architecture by means of a diagram. How they differ from MOLAP architecture? **(10 Marks)**
c. Discuss any two approaches for deploying DSS tools. **(03 Marks)**

3 a. State Bayes Theorem. Give an instance of its application. **(05 Marks)**
b. The probability that measles causes spots is 0.5 and the probability that a person has measles is 0.1 and the probability that a person has spots is 0.2. What is the probability that a person who has spots is having measles? **(05 Marks)**
c. Describe Hypothesis testing and discuss any real world application in detail. **(10 Marks)**

4 a. Describe query and reporting tools in data warehousing environment. **(05 Marks)**
b. What is CHAID? Give an example. **(05 Marks)**
c. What does metadata contain and what are the benefits of metadata repository? **(05 Marks)**
d. Describe the building of predictive models. **(05 Marks)**

5 a. Describe the aspects of business score card. Explain application score card with respect to decision trees. **(10 Marks)**
b. Explain prediction of wireless churns with CART. **(10 Marks)**

6 a. How clustering and nearest neighbor are used? Give examples. **(10 Marks)**
b. Describe image recognition for human handwriting and bring about strengths and weaknesses. **(10 Marks)**

7 a. Discuss in detail the working of genetic algorithm. **(10 Marks)**
b. Describe the case of optimizing predictive customer segment using genetic algorithms. **(10 Marks)**

8 a. What are genetic algorithms and how they relate to evolution? **(10 Marks)**
b. Explain the different ways in which mutation can occur. **(10 Marks)**

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