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13MCA442

Fourth Semester MCA Degree Examination, Aug./Sept.2020
Data Warehousing and Data Mining

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions.

- 1 a. Explain the 3 – tier architecture of a data warehouse, with the help of a neat diagram. (10 Marks)
b. Discuss on various kinds of OLAP models. (10 Marks)
- 2 a. What is Data Preprocessing? What are the steps involved in it? Explain any 2 steps in detail. (10 Marks)
b. Discuss the different phases of knowledge discovery in databases, with a neat diagram. (10 Marks)
- 3 a. Explain the different types of datasets in data mining with examples. (10 Marks)
b. Define Proximity. Discuss the issues involved in proximity calculations. (10 Marks)
- 4 a. Illustrate the process of reducing the number of candidate item sets using Apriori principle with an example. (10 Marks)
b. Discuss on the alternative methods for generating frequent itemsets. (10 Marks)
- 5 a. Explain K – NN classifiers. Discuss the characteristics of K – NN classifiers. (10 Marks)
b. Explain Bayes Theorem. Illustrate with an example how Bayes theorem is used for classification. (10 Marks)
- 6 a. What are the steps involved to build an ensemble classifier? Explain Bagging algorithm. (10 Marks)
b. Discuss on various methods for constructing an ensemble classifier. (05 Marks)
c. Explain how binary classifiers are used to handle multiclass problem. (05 Marks)
- 7 a. Explain different ways of findings interclass cluster distance in hierarchical clustering approach. (10 Marks)
b. What is Cluster analysis? Explain the basic K – means clustering technique. (10 Marks)
- 8 a. What are Outliers? Discuss the different types of outliers with examples. (10 Marks)
b. Write a note on outlier detection through statistical approaches. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

