53 (IT 701) DMDW

2018

DATA MINING AND DATA WAREHOUSING

Paper : IT 701 (Back)

Full Marks : 100

Time : Three hours

The figures in the margin indicate full marks for the questions.

*Answer **any five** questions.*

1. (a) What is Decision Tree Induction ? Explain basic algorithm for inducing a decision tree from a training tuples.

    10

   (b) What is Prediction ? Discuss the use of regression techniques for prediction.

    10

2. (a) Describe the methods for the generation of concept hierarchies for categorical data.   10

(b) What is Multimedia database ? Explain the methods of mining multimedia database.   10

3. (a) Describe the various functionalities of Data mining as a step in the process of knowledge discovery.   10

(b) Explain the Apriori algorithm. Also explain how the association rules are generated from frequent item sets.

   10

4. (a) Discuss briefly the different steps in preprocessing of data.   10

(b) What is meant by dimensionality reduction ? Discuss *any two* methods.
   10

5. (a) Describe the Data Cube Technology with an example.   10

(b) Discuss the mapping of data warehouse to multiprocessor architecture.

   10

6. (a) Describe the different methods for data cleaning.   10

(b) Describe the role of data mining in spatial database.   10

7. Write short notes on :   20

   (i) K-means algorithm

   (ii) K-medoid algorithm

   (iii) Outlier detection

   (iv) FP-growth tree algorithm.

(b) Describe about various data mining in spatial databases.

7. Write short notes on:

ii. K-means clustering.

iii. K-medoid algorithm.

iii. Outlier analysis.

iv. PI-Browse tree algorithm.