



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.C.A. DEGREE EXAMINATION – COMPUTER APPLICATIONS

FIFTH SEMESTER – NOVEMBER 2017

CA 5807 – DATA MINING

Date: 04-11-2017

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

Part-A

Answer ALL Questions

(10 * 2= 20)

1. Compare descriptive and predictive mining
2. What is Data characterization?
3. Define Outliers
4. Give an example of Multidimensional association rule.
5. What is Data generalization?
6. Define Data transformation.
7. Compare Classification and Prediction.
8. What is multiple linear Regression analysis?
9. What are the requirements for clustering?
10. Write few applications of data mining in Telecommunications.

Part – B

Answer ALL Questions

(5 * 8= 40)

11. a) What is Noise? Explain the techniques used to remove the noisy data.

(or)

- b) Explain Attribute subset selection method for data reduction.

12. a) Explain the issues regarding classification and prediction.

(or)

- b) Explain the Decision tree based classification in detail.

13. a) Explain k-means partitioning algorithm in Cluster Analysis.

(or)

b) Explain BIRCH clustering method in detail.

14. a) Write short notes on Multimedia data mining.

(or)

b) Write short notes on Mining WWW.

15. a) How to predict the class label for weather data set using Weka Tool.

(or)

b) Explain the Applications of Data mining in financial data analysis.

Part – C

Answer any TWO Questions

(2 * 20= 40)

16. a) Explain the architecture of Data mining in detail.

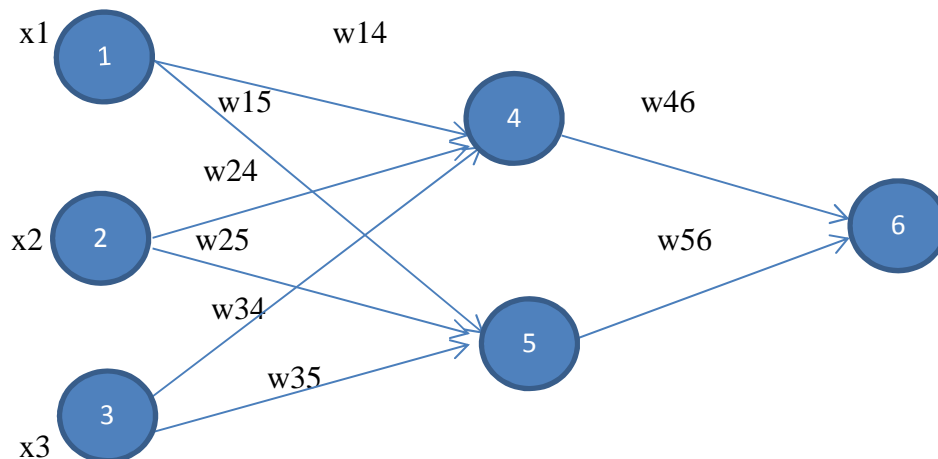
b) Explain the schema representation for multidimensional databases.

17. a) Describe Bayesian classification in detail.

b) Discuss Text data mining in detail.

18. a) Explain the social impacts of data mining.

b) A multilayer feed-forward neural network is given. Let the learning rate be 0.9. The initial weight and bias values of the network are given in the following Table, along with the first training tuple, $\mathbf{X} = (1, 0, 1)$, whose class label is 1. Compute the net input and output of each unit and compute error of each unit.



An example of a multilayer feed-forward neural network.

Initial input, weight, and bias values are

x1	x2	x3	w14	w15	w24	w25	w34	w35	w46	w56	4	5	6
1	0	1	0.2	-0.3	0.4	0.1	-0.5	0.2	-0.3	-0.2	-0.4	0.2	0.1
