

END TERM EXAMINATION

SIXTH SEMESTER [BCA] MAY 2019

Paper Code: BCA-302

Subject: Data Warehouse and Data Mining

Time: 3 Hours

Maximum Marks: 75

Note: Attempt any five questions including Q.no.1 which is compulsory.
Select one question from each unit.

Q1 Answer the following questions in brief (Any Ten): (2.5x10=25)

- (a) Explain the steps involved in data mining when viewed as a process of knowledge discovery.
- (b) What is Data Ware housing and why is it important for decision support?
- (c) Write the names of the data bases and information repositories on which data mining can be performed.
- (d) What do you mean by association rule mining?
- (e) Explain back propagation.
- (f) How to evaluate the accuracy of a classifier?
- (g) What can we do to secure the privacy of individuals while collecting and mining data?
- (h) Define support and confidence.
- (i) Define Lazy Learners
- (j) Explain Star schema and compare it with snow-flakes schema
- (k) Differentiate between supervised and unsupervised learning

UNIT-I

- Q2 (a) Explain in detail the three data models used in Data Warehouse. (6)
- (b) Discuss Data integration and Data transformation in detail. (6.5)
- Q3 (a) What is the difference between three main types of Data Warehouse usage: information processing, analytical processing and data mining? (6)
- (b) Discuss the issues and benefits of data mining. (6.5)

UNIT-II

- Q4 (a) Explain the 2-tier and 3-tier data warehouse architectures in detail with suitable examples. (6)
- (b) What is the difference between OLAP and OLTP? (6.5)
- Q5 (a) Explain single-dimensional and multi-dimensional association rules through confidence-support framework using a suitable example. (6)
- (b) Explain Apriori algorithm of association rule mining. (6.5)

UNIT-III

- Q6 (a) What is the difference between classification and clustering? Explain the major ideas of naïve Bayesian classification. (6)
- (b) Explain the co-relation analysis with suitable example. (6.5)
- Q7 (a) What is classification by back propagation? Discuss the steps of back propagation algorithm. (6)
- (b) What are requirements of clustering? List major clustering methods with example. (6.5)

UNIT-IV

- Q8 Discuss the applications of data mining in the following: (5x2.5=12.5)
 - (a) Retail industry
 - (b) Telecommunication Industry
 - (c) Biological Data Analysis
 - (d) Social Network analysis
 - (e) Information package
- Q9 (a) Write the steps to mine spatial and multimedia databases. (6)
- (b) Explain difference between Temporal Databases and Sequential databases. (6.5)
