*(Please write your Exam Roll No.)* *Exam Roll No. .....*

# 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)**

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