RY-003-003621 Seat No. _____

B. C. A. (Sem. VI) Examination

March - 2019

CS - 32 : Data Warehousing And Data Mining

Faculty Code : 003

Subject Code : 003621

Time : $2\frac{1}{2}$ Hours] [Total Marks : **70**

1 Attempt the following : **20**

(1) Define Data Mining.

(2) Write down equations of Bias and MSE.

(3) What is Clustering?

(4) Which diagram is used to illustrate the hierarchical clustering technique?

(5) What is surrogate key?

(6) list three types of Agglomerative algorithm.

(7) Give the name of first tier in three tiered DWH architecture.

(8) Define Confidence and write down its equation.

(9) ETL stands for _____

(10) _____ is the last phase of CRISP Data Mining cycle.

(11) Which component of DWH architecture shows analysis in graphical format for taking decision?

(12) Dimension table normally includes _____ data.

(13) Write down an equation of Bayes Theorem.

(14) What is nearest neighbor algorithm?

(15) HOLAP stands for _____

(16) Which are two types of hierarchical clustering?

(17) What is WEKA?

(18) ARFF stands for _____

(19) What is Support in association rule?

(20) Which hierarchical clustering is the opposite process of Divisive clustering?

2 (A) Attempt the following : (Any **Three**) **6**

(1) Explain last phase of Data Mining process.

(2) Explain Data Granularity.

(3) Explain security in Data Mart.

(4) What is Data warehouse? List its characteristics.

(5) List advantages of ROLAP.

(6) Explain Point Estimation.

(B) Attempt the following : (Any **Three**) **9**

(1) Differentiate: Operational System & Informational System

(2) Differentiate: Fact Data & Dimension Data

(3) Differentiate: OLAP & OLTP

(4) Differentiate: Data Mart & Data Warehouse

(5) Differentiate: ROLAP&MOLAP

(6) Differentiate: Two tiered & Three tiered DWH architecture

(C) Attempt the following : (Any **Two**) **10**

(1) Explain any two architectural components of Data Warehouse.

(2) Explain the usage of association in Market Basket Analysis.

(3) Write a note on Binary Decision Tree with suitable example.

(4) Describe Star schema Data Mart.

(5) Explain Clustering with its classification.

3 (A) Attempt the following : (Any **Three**) **6**

(1) Explain Data cleansing in ETL.

(2) What is FP-tree growth algorithm?

(3) List advantages of MOLAP.

(4) Explain KDD.

(5) What is detailed data in data warehouse?

(6) List out application area of Neural Network.

(B) Attempt the following : (Any **Three**) **9**

(1) Explain Pincer Search Algorithm.

(2) Write a note on sampling algorithm.

(3) Explain Divisive Clustering.

(4) Explain Association Rules.

(5) Draw classification of Data Mining & list the techniques.

(6) Explain any one type of OLAP.

(C) Attempt the following : (Any **Two**) **10**

(1) Write a note on Neural Networks.

(2) Explain Basic steps to develop data warehouse architecture.

(3) Explain Apriori algorithm with example.

(4) Explain steps for data mining process.

(5) Explain Bayes Theorem & Hypothesis Testing.
