Reg. No.	
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## **BCACAC 212**

# Credit Based Third Semester B.C.A. Degree Examination, April 2021 (Semester Scheme) (2019 – 20 and Earlier Batches) DATA MINING

Time: 3 Hours Max. Marks: 80

Note: Answer any ten questions from Part – A and any one full question from each Unit in Part – B.

#### PART - A

(10×2=20)

- 1. a) Define data cube.
  - b) What is data warehouse?
  - c) Define maximal frequent set and border set.
  - d) What is FP tree?
  - e) What is mutation?
  - f) What are transverse and intrinsic links?
  - g) What is page rank?
  - h) What is stemming?
  - i) List the structures used in dynamic item set counting algorithm.
  - j) What is temporal data mining?
  - k) Define rough set.
  - I) What is entropy?

PART - B

UNIT-1

- 2. a) Explain different stages of KDD.
  - b) Explain data warehouse architecture with neat diagram.
  - c) Compare data mining and DBMS.

(5+6+4)

### **BCACAC 212**

- 3. a) Explain star schema with diagram. b) Explain the following OLAP operations with neat diagrams. (i) Slicing (ii) Dicing (5+5+5) c) Explain Meta data with their types. UNIT - II 4. a) Explain APRIORI algorithm with an example. b) Compare categorical and numerical clustering. (6+5+4)c) Write a note on CLARA. 5. a) Explain Partition algorithm with an example. b) Write a note on STIRR. (6+4+5) c) Differentiate hierarchical and partition clustering. UNIT - III 6. a) Explain RBFN with a neat diagram. b) Explain the typical artificial neurons with activation function. c) Explain mutation and crossover operation in genetic algorithm. (5+5+5)a) Explain rough set theory. b) Write a note on best split. (5+5+5)c) Explain decision tree with suitable example. UNIT - IV
- 8. a) Explain GSP algorithm.
  - State the important features that can be extracted from an unstructured document.
  - c) Write a note on web usage mining.

(5+5+5)

- 9. a) Write a note on web content mining.
  - b) Explain episode discovery.
  - c) List and explain various temporal data mining tasks.

(4+5+6)