Total No. of Questions : 5]

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[Total No. of Pages : 2

SEAT No. :

F.Y. M.B.A.

SC - BA - 02: DATA MINING

(2019 Revived Pattern) (Semester -II) (206 -BA)

Time : 2¹/₂ Hours]

[Max. Marks : 50

[10]

[10]

- Instructions to the candidates:
 - All questions are compulsory. **1**)
 - 2) Figures to the right indicate marks for questions sub questions.

Q1) Solve Any five out of Eight

- Define Data Mining. a)
- What is feature selection? b)
- List the characteristics of Big data. c)
- What is data quality? d)
- Recall the expanded form of SVM and give an example. e)
- Can you recite the components of a confusionMatrix. f)
- List two BI tools. **g**)
- Give 2 examples of real world Data mining applications. h)

Q2) Solve Any Two out of Three

- Differentiate between partitional and hierarchical clustering Method. a)
- Explain the process of Data Normalization and its importance in preparing b) data for analysis.
- Outline the various tasks encompassed in data mining including c) classification, clustering, association analysis and anomaly detection.

ind free, Apply Apriori Algorithm to the given dataset to find frequent itemsets. **Q3**) a) (Given support 40% and 40% confidence) [10]

Items Bought Tid T₁ A, B, C **T**₂ A, B, C, D, E T₃ A, C, D T_{A} A, C, D, E T, A, B, C, D

OR

- b) Apply the decision tree based approach to classify B2B customer buying stages and provide recommendations for targeted marketing strategies.
- Q4) a) Analysis the applications of association analysis in the fields of medical informatics, highlighting the significance in uncovering valuable patterns and relationships [10]

OR

- b) Explain Graph based Algorithm in clustering with suitable example.
- Q5) a) Discuss how data mining contributes to fraud detection in Business [10]

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b) Elaborate how Anomaly detection helps businesses to identify unusual behaviour or irregular patterns.