

3 Hours)

[Total Marks 80]

- i. **Q. 1. is Compulsory.**
- ii. **Attempt any three from the remaining.**
- iii. **Assume suitable data.**

- Q. 1** (a) Explain Regression based classifier (5)
- (b) What is Data Preprocessing? Explain the different methods for the Data Cleansing phase (5)
- (c) What is hierarchical clustering? Explain any two techniques for finding distance between the clusters in hierarchical clustering. (5)
- (d) Define "Data mining", Enumerate five example applications that can benefit by using Data Mining (5)
- Q. 2** (a) Explain clearly working of DBSCAN using appropriate diagrams (10)
- (b) Explain Data mining as a step in KDD. Give the architecture of typical Data Mining system (10)
- Q. 3** (a) Explain BIRCH algorithm with example (10)
- (b) Explain different visualization techniques that can be used in data mining (10)
- Q. 4** (a) Explain Multilevel association rules with suitable examples (10)
- (b) Define classification, issues of classification and explain ID3 classification with example (10)
- Q. 5** (a) Explain Bagging and Boosting of classifiers (10)
- (b) Explain Box plot summary with example (10)
- Q. 6** (a) Explain Business Intelligence Issues (10)
- (b) What is clustering? Explain k-means clustering algorithm. Suppose the data for clustering – {2, 4, 10, 12, 3, 20, 11, 25} Consider k=2, cluster the given data using above algorithm. (10)

(03 hours)

Total marks: 80

Note: 1. Q.1 is compulsory

2. Attempt any 3 from remaining

3. Assume suitable data if necessary.

- Q1 a) What are spiderable link structures? Explain with a suitable example. 10
b) Explain SWOT analysis. List the factors that determine strengths and weaknesses in SWOT analysis. 10
- Q2 a) Describe the role of the querySelector() and querySelectorAll() methods in CSS. 10
b) Explain in detail JSON mashup with diagram. 10
- Q3. a) What are the characteristics of REST WSS? 10
b) Explain AJAX Web application model. 10
- Q4. a) Make a style sheet in which background color of alternate paragraph should be different. 10
b) Define and describe mashups. What are the primary reasons for the success of mashups? 10
- Q5. a) Using HTML5 Draw a canvas containing a star. 10
b) Explain characteristics of RIA. Discuss web services. 10
- Q6. a) What is media query? How is a media query used? 5
b) What is the role of the hidden field? 5
c) Explain pagination. List its limitations. 5
d) List all the elements of a web page. 5
-