

REVISED COURSE
(3 HOURS)

[TOTAL MARKS:80]

- N.B. 1. Question 1 is compulsory
2. Attempt any three question out of the remaining five question.

- Q.1(a) Define Business intelligence and decision support systems with examples 10
(b) Explain Data mining as a step in KDD. Give the architecture of typical Data Mining system. 10
- Q.2 (a) Explain BIRCH algorithm with example 10
(b) Explain different visualization techniques that can be used in data mining 10
- Q.3 (a) Explain Multilevel association rules with suitable examples 10
(b) Define classification, issues of classification and explain ID3 classification with example 10
- Q.4(a) Why is Data Preprocessing required? Explain the different steps involved in data preprocessing 10
(b) What is text mining? Explain different approaches to text mining 10
- Q.5 (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
- Q.6(a) Explain sequence mining in Transactional databases 10
(b) Design a BI system for fraud detection by describing all the steps from Data Collection to Decision Making 10