

- N.B. : (1) Question No. 1 is **compulsory**.
 (2) Solve any **four** questions from remaining **six** questions.

Q. 1 Solve any **Four** from following.

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|---|---|----|
| A | Compare Data Mining and Text Mining | 05 |
| B | What is Web Usage Mining? | 05 |
| C | What are the Major issues in Data Mining? | 05 |
| D | Explain multilevel association rules | 05 |
| E | Compare database and data warehouse. | 05 |

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| Q. 2 | A | Explain mining sequence patterns in transactional Databases. | 10 |
| | B | Explain any one method of hierarchical clustering with example. | 10 |

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| Q. 3 | A | Explain different data stream methodologies. | 10 |
| | B | Explain Data Integration and Transformation with an example | 10 |

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| Q. 4 | A | Explain Hoeffding Tree algorithm with example. | 10 |
| | B | List the dimensions and facts for Clinical information system and design star and snowflake schema. | 10 |

- Q. 5 A Explain different OLAP operations and applications. 10
- B Use K-means algorithm to create 3- clusters for given set of values
{ 2, 3, 6, 8, 9, 15, 18, 22 } 10
- Q. 6 A Design a BI application which will provide Retail Chain Company
with features and performance that meet their objectives. Use any 10
data mining technique.
- B Explain Web content Mining with reference to crawlers, harvest
system, virtual web view and personalization 10
- Q. 7 Write short note on (any Three) 20
- A Difference between Periodic crawler and Incremental crawler
- B Spatial Data mining
- C Market segmentation
- D Outlier analysis