**R20**

SET - 1

### III B. Tech I Semester Supplementary Examinations, May/June -2024
### DATA WAREHOUSING AND DATA MINING
(Computer Science and Engineering)

Time: 3 hours                                                                                    Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from **Each unit**
All Questions Carry Equal Marks
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## UNIT-I

| | | | |
|---|---|---|---|
| 1. | a) | Discuss about challenges in data mining. | [7M] |
| | b) | Explain the architecture for online analytical mining. | [7M] |

(OR)

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|---|---|---|---|
| 2. | a) | Explain 3-tier architecture of data warehousing. | [7M] |
| | b) | Differentiate Multi-Dimensional OLAP and Multi-Operational OLAP. | [7M] |

## UNIT-II

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|---|---|---|---|
| 3. | a) | Enumerate about Z-Score Normalization. | [7M] |
| | b) | Explain parametric and non-parametric methods of data reduction. | [7M] |

(OR)

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|---|---|---|---|
| 4. | a) | Explain various issues related to data cleaning. | [4M] |
| | b) | Clearly discuss about the data preprocessing techniques in detail. | [10M] |

## UNIT-III

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| 5. | a) | Explain density based clustering methods in detail. | [7M] |
| | b) | Explain about outlier analysis. | [7M] |

(OR)

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|---|---|---|---|
| 6. | a) | Write about issues regarding classification and prediction. | [7M] |
| | b) | Discuss about rule based classification. | [7M] |

## UNIT-IV

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|---|---|---|---|
| 7. | a) | Explain about Frequent Itemsets and Closed Itemsets. | [7M] |
| | b) | Briefly discuss about Association rules in data mining. | [7M] |

(OR)

| | | | |
|---|---|---|---|
| 8. | a) | Explain about Frequent Itemset Mining Methods. | [7M] |
| | b) | Elaborate the different Pattern Evaluation Methods. | [7M] |

## UNIT-V

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|---|---|---|---|
| 9. | a) | Define clustering? Explain about types of data in cluster analysis. | [7M] |
| | b) | Explain about K-Means clustering. | [7M] |

(OR)

| | | | |
|---|---|---|---|
| 10. | a) | Explain about various hierarchical clustering methods. | [7M] |
| | b) | How to measure clustering quality? Explain. | [7M] |