

Hall Ticket Number :

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R-17

Code: 7G163

III B.Tech. II Semester Supplementary Examinations April 2023

**Object Oriented Analysis and Design**

(Computer Science and Engineering)

Max. Marks: 70

Time: 3 Hours

Answer any five full questions by choosing one question from each unit (5x14 = 70 Marks )

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Marks CO BL

**UNIT-I**

1. a) Explain briefly the strengths and weaknesses of Object Orientation paradigm. 7M 1 2  
 b) How does the object-oriented view of component-level design differ from the conventional view? 7M 1 1

**OR**

2. a) Define software Architecture. Explain the five interlocking view model of system architecture. 7M 1 1  
 b) In UML, state how system architecture is deployed? 7M 1 1

**UNIT-II**

3. a) Explain the properties of a well-structured diagram. 7M 2 2  
 b) Draw and explain the class diagram for ATM bank system. 7M 2 3

**OR**

4. a) Differentiate classes, packages and interfaces with examples. 7M 2 2  
 b) What are the common properties and uses of class diagrams? Explain with an example. 7M 2 1,2

**UNIT-III**

5. What is activity diagram? Draw and explain the activity diagram for a library management system 14M 3 2,4

**OR**

6. a) Define Use case? What are the points to be considered to model the context of a system using Use case diagram? 7M 3 1  
 b) Briefly explain about Modeling techniques in interaction Modeling. 7M 3 2

**UNIT-IV**

7. Describe the various concepts involved in modeling a Reactive objects with a neat sketch? 14M 4 1

**OR**

8. a) Explain with UML notation of Interaction diagrams by considering library system as example. 7M 4 2  
 b) Define guard condition. How do you identify concurrent and nested states? Give an example. 7M 4 1

**UNIT-V**

9. a) Explain about Deployment diagram? How it is useful in modeling of an embedded system? 8M 5 2  
 b) Draw the Deployment Diagram for Library System 6M 5 3

**OR**

10. a) Draw deployment and component diagrams for the library system. 7M 5 2  
 b) Discuss the usefulness of deployment diagram. 7M 5 2

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Hall Ticket Number :

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III B.Tech. II Semester Supplementary Examinations April 2023

**Data Mining & Data Warehousing**

(Computer Science and Engineering)

Max. Marks: 70

Time: 3 Hours

Answer any five full questions by choosing one question from each unit (5x14 = 70 Marks)

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Marks CO BL

**UNIT-I**

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|----|---|----|---|-----|
| 1. | a) What is data transformation? Explain different types of data transformation used in data mining. | 8M | 1 | 1,2 |
|    | b) Describe the concept hierarchy generation for categorical data.                                  | 6M | 1 | 5   |

**OR**

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|----|--|-----|---|---|
| 2. | Describe challenges to data mining regarding data mining methodologies, user interaction issues, diversity of data types | 14M | 1 | 2 |
|----|--|-----|---|---|

**UNIT-II**

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|----|---|----|---|---|
| 3. | a) Briefly compare Enterprise warehouse, Data Mart, Virtual warehouse | 7M | 2 | 2 |
|    | b) Discuss about association rule mining                              | 7M | 2 | 2 |

**OR**

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|----|---|----|---|---|
| 4. | a) How can we mine multilevel association rules efficiently using concept hierarchies? Explain. | 7M | 2 | 1 |
|    | b) Discuss about the various components of metadata repository                                  | 7M | 2 | 2 |

**UNIT-III**

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|----|--|-----|---|-----|
| 5. | a) How Classification is performed using Decision Tree induction? Explain with an example. | 10M | 3 | 1,2 |
|    | b) What do you understand by Information gain  | 4M  | 3 | 1   |

**OR**

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|----|--|----|---|-----|
| 6. | a) What is classification? Discuss major issues in classification and prediction.          | 7M | 3 | 1,2 |
|    | b) Explain briefly about Multi-layer feed forward neural network algorithm with an example | 7M | 3 | 2   |

**UNIT-IV**

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|----|---|-----|---|-----|
| 7. | Summarize how to compute dissimilarity between two objects for the following variables. |     |   |     |
|    | a) Interval-Scaled    b) Binary    c) Categorical    d) Ordinal                         | 14M | 4 | 2,3 |

**OR**

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|----|--|----|---|---|
| 8. | a) What is cluster analysis? Discuss Grid based clustering methods | 7M | 4 | 1 |
|    | b) Explain about density based methods with a neat example.        | 7M | 4 | 2 |

**UNIT-V**

- |    |  |     |   |   |
|----|--|-----|---|---|
| 9. | Describe the challenges of mining the WWW. | 14M | 5 | 2 |
|----|--|-----|---|---|

**OR**

- |     |   |    |   |   |
|-----|---|----|---|---|
| 10. | a) Demonstrate the methodologies used for spatial mining. | 7M | 5 | 6 |
|     | b) Summarize about Data mining applications               | 7M | 5 | 2 |

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Important Note: 1. On completing your answers. Compulsorily draw diagonal cross line on the remaining blank pages. 2. Any revealing of identification, appeal to evaluator and/or equations written eg. 42+8=50, will be treated as malpractice.