

Enrolment No. /Seat No.: _____

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA INTEGRATED – SEMESTER III- EXAMINATION – WINTER-2025

Subject Code: 2638603

Date: 03/12/2025

Subject Name: Structured and Object Oriented Analysis and Design

Methodology

Time:10:30 AM TO 01:00 PM

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Use of simple calculators and non-programmable scientific calculators are permitted.

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|------------|--|-----------|-----------|
| Q.1 | (a) Explain dependency. | | 04 |
| | (b) Discuss open ended questions. | | 03 |
| | (c) Explain Association. | | 04 |
| | (d) Discuss advantages and disadvantages of prototyping. | | 03 |
| Q.2 | (a) Write short note on Generalization. | | 07 |
| | (b) Discuss the role of System Analyst. | | 07 |
| | | OR | |
| | (b) Explain time and change events. | | 07 |
| Q.3 | (a) Discuss modeling of primitive types. | | 07 |
| | (b) Explain Agile development Process. | | 07 |
| | | OR | |
| Q.3 | (a) Explain sequence diagram with suitable example. | | 07 |
| | (b) Discuss Normalization. What is the advantage of doing Normalization? | | 07 |
| Q.4 | (a) Discuss the concepts of forking and joining with reference to state diagram. | | 07 |
| | (b) Discuss guidelines for Dialog design. | | 07 |
| | | OR | |
| Q.4 | (a) Explain concept of Inheritance with example and UML diagram. | | 07 |
| | (b) Discuss key points for web design. | | 07 |
| Q.5 | (a) Discuss Modeling of simple collaborations. | | 07 |
| | (b) Explain logical and physical data structures. | | 07 |
| | | OR | |
| Q.5 | (a) Write short note on Process Specifications. | | 07 |
| | (b) Develop a data flow diagram for Library Management system. | | 07 |
