

Enrolment No. /Seat No.: _____

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA INTEGRATED – SEMESTER III- EXAMINATION – WINTER-2024

Subject Code:2638603

Date: 09/12/2024

**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.

- Q.1 (a) Write a short note on-** **07**
- (1) JAD
 - (2) <> in use case
 - (3) Structured English
 - (4) Multiplicity
 - (5) OLAP stands for _____
 - (6) do activity
 - (7) Class and Object
- (b) Define the term SDLC. Explain the steps of SDLC with suitable diagram.** **07**
- Q.2 (a) Draw the context level and level-0 data flow diagram (DFD) for online admission system.** **07**
- (b) Explain decision tree and table by taking suitable example. Discuss any two advantages of decision tree.** **07**
- OR**
- (b) Write Short Note on DATA DICTIONRY** **07**
- Q.3 (a) Explain Structured English and Decision Tree with suitable example** **07**
- (b) 1. Write short notes on Scrum.** **07**
- OR**
- Q.3 (a) Write a short not on Graphical User Interface, also explain Ajax in brief.** **07**
- (b) Discuss the guidelines for designing good websites.** **07**
- Q.4 (a) Draw the class and object diagram for bank management system.** **07**
- (b) Draw class diagram for online flight reservation system with proper explanation of classes and relationships.** **07**
- OR**
- Q.4 (a) Define component.[01] Compare class and component.[02] Discuss the characteristics of component.[04]** **07**
- (b) Discuss the structural and behavioral diagram of UML.** **07**
- Q.5 (a) Draw the use case diagram for online grocery order system. Explain the purpose of <> and <> in use case diagram.** **07**
- (b) Explain forking, joining and object flow in activity diagram with example.** **07**

OR

- Q.5** (a) Draw the sequence and collaboration diagram for use cases issue book and return book for library management system. **07**
- (b) What is state and event? Draw the state chart diagram for washing machine. **07**
