

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA INTEGRATED– SEMESTER -III EXAMINATION –WINTER-2022

Subject Code: 2638603**Date: 30/12/2022****Subject Name: Structured and Object Oriented Analysis and Design Methodology****Time: 02:30 PM TO 5:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 (a)** Write a short note on **07**
- (1)Class
(2)Object
(3)DFD
(4) <<include>> in use case
(5)SDLC
(6)OLAP
(7) Scrum
- (b)** Write a short notes on **03**
- (1) Decision tree **02**
(2) Role of system analyst **02**
(3)Specialization **02**
- Q.2 (a)** Draw DFD on School Management System. **07**
- (b)** Draw context level, 0-level DFD for library management system. **07**
- OR**
- (b)** Explain SDLC with all phases in detail. **07**
- Q.3 (a)** Discuss the fact finding techniques with suitable example. **07**
- (b)** Explain Structured English and Decision Tree with suitable example. **07**
- OR**
- Q.3 (a)** Explain the factors to consider when choosing output technology. **07**
- (b)** Discuss the guidelines for designing good websites. **07**
- Q.4 (a)** Define State. Describe State Transition and Conditions with example. **07**
- (b)** Discuss the structural and behavioral diagram of UML. **07**
- OR**
- Q.4 (a)** Discuss Generalization, Association, and Composition in UML with example. **07**
- (b)** Draw State diagram for phone line activities with various states such as (idle, dial tone, dialing, connecting, ringing, connected, disconnected, busy tone, warning, timeout, etc.) **07**
- Q.5 (a)** What is Use Case in UML? List down actors and use cases for the Online Train Reservation System. **07**
- (b)** What is Class? How will you Draw class diagram? Give suitable example. **07**
- OR**
- Q.5 (a)** Explain forking, joining and object flow in activity diagram with example. **07**
- (b)** What is Use Case diagram? Compare include and extend relationship of Use Case diagram with suitable example. **07**
