

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**MCA INTEGRATED– SEMESTER III- EXAMINATION –SUMMER-2022**

**Subject Code: 2638603****Date: 15/06/2022****Subject Name: Structured and Object Oriented Analysis and Design Methodology****Time: 02:30 PM to 05:00 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) Do as directed. 07**
1. Purpose of DFD can be \_\_\_\_\_.
  2. Give advantage and disadvantage of CASE tool.
  3. Give full form of JAD and TPS.
  4. \_\_\_\_\_ shows set of use cases and actors and their relationships
  5. \_\_\_\_\_ means data about the data in the file or database.
  6. List basic symbols of DFD with their meaning.
  7. OLAP stands for \_\_\_\_\_
- (b) Describe the purpose of SDLC. Draw the diagram for SDLC and explain all the steps of analysis and design of a system. 07**
- Q.2 (a) Explain types of information system 07**
- (b) List different requirement gathering techniques. Explain any one in detail with Advantages and disadvantages 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 03**
- 2. Define : Generalization, Association , Dependency , Realization 04**
- OR**
- Q.3 (a) Draw DFD on Railway Reservation System 07**
- (b) Write a short not on Graphical User Interface, also explain Ajax in brief. 07**
- Q.4 (a) What is Class diagram? Explain it with suitable example. 07**
- (b) Discuss guidelines for designing website. 07**
- OR**
- Q.4 (a) What is Use Case diagram? Compare include and extend relationship of Use Case diagram with suitable example. 07**
- (b) Explain all components of Activity diagram giving example 07**
- Q.5 (a) Explain the concept of Sequence diagram giving a suitable example 07**
- (b) Draw use case diagram for Whats App Application 07**
- OR**
- Q.5 (a) prepare Activity and sequence diagram for Online Mobile Recharge System 07**
- (b) Draw statechart diagram for phone line activities with various states such as (idle, dialtone, dialing, connecting, ringing, connected, disconnected, busy tone, warning, timeout, etc.). 07**