

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**MCA INTEGRATED– SEMESTER III- EXAMINATION –WINTER-2023**

**Subject Code:2638603****Date: 12/12/2023****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)** Discuss Office Automation System (OAS) and Knowledge Work System (KWS) Also give one difference between them. **07**

**(b)** Discuss following: **07**

1. System Analyst as a Supporting Expert [2].
2. Four Phases of SDLC Approach [2].
3. Explain Upper case tool [1.5].
4. Explain in short Economic Feasibility [1.5].

**Q.2 (a)** Discuss Advantaged of Open-Ended Questions also Discuss way of Arranging Questions. **07**

**(b)** Explain following in brief: **07**

1. Scrum [2].
2. Logical and Physical Data Flow Diagram [2].
3. Algebraic notation for Data Structures [1.5].
4. Standard format of a decision table [1.5].

**OR**

**(b)** Prepare Context Diagram and Diagram 0 for hospital management System. **07**

**Q.3 (a)** Discuss Output Technologies and Caption Types of input Design. **07**

**(b)** Explain difference between Data Warehouses and database also Discuss Question-and-Answer interface. **07**

**OR**

**Q.3 (a)** Explain elements of Animation and Intranet and Internet page design. **07**

**(b)** Give the details of Data Mining and Types of Feedback. **07**

**Q.4 (a)** What is UML? List out and explain Things in the UML. **07**

**(b)** What is Components? How Components used with class Explain with Example. **07**

**OR**

**Q.4 (a)** What is UML? List out and explain Types of Relationships in the UML. **07**

**(b)** Discuss following Diagram with Example: **07**

1. Object.
2. Advanced Class.

**Q.5 (a)** Discuss Use Case Diagram. Draw the Use Case Diagram for Online Policy Bazaar System. **07**

**(b)** What is Interactions? Discuss differences between sequence diagram and collaboration diagram with UML diagram example. **07**

**OR**

**Q.5 (a)** Explain Activity Diagram Draw the Activity Diagram for Online Registration for College Cricket Tournament. **07**

**(b)** Discuss State Diagram draw the State Diagram for Food Delivery App like Zomato. **07**

\*\*\*\*\*