Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA - SEMESTER–III • EXAMINATION – SUMMER - 2017

Subject Code: 2630001 **Date:31-05-2017**

Subject Name: Structured and Object Oriented Analysis and Design Methodology

Time: 02:30 pm - 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)**	List different requirement gathering techniques. Explain any one in detail with advantages and disadvantages.	**07**
	(b)	Explain various stages of System Development Life Cycle.	**07**
Q.2	**(a)**	Explain the five steps in interview preparation.	**07**
	(b)	Explain in brief KWS, ESS, TPS, Data Structures, Data Elements, JAD and Data Store.	**07**
		OR	
	(b)	Discuss the concept of SDLC and its importance in development of the System.	**07**
Q.3	**(a)**	Discuss Generalization, Association, Composition in UML with example.	**07**
	(b)	Write a short not on Graphical User Interface, also explain Ajax in brief.	**07**
		OR	
Q.3	**(a)**	Discuss methods for ensuring data quality through input validation.	**07**
	(b)	1. Discuss concept of composition in class diagram. 2. Write a note on Structured English.	**07**
Q.4	**(a)**	What are the stages of OO Methodology.	**07**
	(b)	Draw Context Level, 0-Level Data Flow Diagram (DFD) & Use Case Diagram for a Library Management System. Make assumptions about the system by your own.	**07**
		OR	
Q.4	**(a)**	Explain all components of Activity diagram giving example.	**07**
	(b)	Explain Data Dictionary in Detail with example.	**07**
Q.5	**(a)**	What is Event? Explain Signal Event , Change Event , Time Event	**07**
	(b)	List down actors and use cases for the following systems. 1. Hospital Management System. 2. Online Train Reservation System.	**07**
		OR	
Q.5	**(a)**	Explain the concept of Sequence diagram giving a suitable example.	**07**
	(b)	Draw statechart diagram for phone line activities with various states such as (idle, dialtone, dialing, connecting, ringing, connected, disconnected, busytone, warning, timeout, etc.).	**07**

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