

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 note 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. **07**
2. Write a note on Structured English.
- 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. **07**
1. Hospital Management System.
 2. Online Train Reservation System.
- 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**
