

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**MCA - SEMESTER-III • EXAMINATION – SUMMER • 2015**

**Subject Code: 630001****Date: 07-05-2015**

**Subject Name: Structured and Object Oriented Analysis  
and Design Methodology**

**Time: 02:30 pm - 05:00 pm****Total Marks: 70**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Draw figures whenever necessary.

- Q.1 (a)** What is SDLC? Explain various stages of System Development Life Cycle. **07**  
**(b)** What is Activity Diagram? Draw Activity Diagram for DVD Purchase System. **07**
- Q.2 (a)** (1) DSS Stands for \_\_\_\_\_ **07**  
(2) virtual reality systems is an example of \_\_\_\_\_  
(3) Algebraic Notation Plus sign, means \_\_\_\_\_  
(4) \_\_\_\_\_ is a class of persons, places or things.  
(5) \_\_\_\_\_ is a unique attribute for the record.  
(6) \_\_\_\_\_ means data about the data in the file or database.  
(7) OLAP stands for \_\_\_\_\_
- (b)** What is Effective Coding? Explain the following Coding. **07**  
(1) Function code (2) Unicode
- OR**
- (b)** What do you mean by Form Designing? Discuss the Guidelines for Form Designing. **07**
- Q.3 (a)** What is Object Orientation? Explain identity, classification, inheritance and polymorphism. **07**  
**(b)** What do you mean by designing query? Discuss various types of queries. **07**
- OR**
- Q.3 (a)** Write a note on (1) Data Dictionary and (2) Structured English **07**  
**(b)** What is Generalization? Discuss the different purposes of Generalization with example. **07**
- Q.4 (a)** Write a note on (1) State Diagram and (2) Nested State Diagrams **07**  
**(b)** What is Decision Tree? Discuss Decision Table with suitable example **07**
- OR**
- Q.4 (a)** Write a note on (1) Types of Interface and (2) Input Validation **07**  
**(b)** What is Designing? Discuss points to be considered while designing Dialog. **07**
- Q.5 (a)** What is Class Diagram? Draw Class Diagram for ATM system **07**  
**(b)** Differentiate Logical DFD v/s Physical DFD with suitable Example **07**
- OR**
- Q.5 (a)** What is Class Attributes? Draw Class Diagram for Magazine Subscription **07**  
**(b)** What is Use Case Diagram? Explain it with suitable Example **07**

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