Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–IV (OLD) EXAMINATION – WINTER 2018

Subject Code:140703 **Date: 05/12/2018**

Subject Name: Object Oriented Analysis Design And Uml

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)**	What is object orientation? Explain OO themes.	**07**
	(b)	What is inheritance? List the different types of inheritance and explain how it encourages reusability and sharing.	**07**
Q.2	**(a)**	Define following Terms: Derived data , Abstract Class , Generalization, Multiplicity, Constrains, Metadata, Package.	**07**
	(b)	List all kinds of control information represented by Dynamic model. Prepare State chart diagram for Two Party Phone Call.	**07**
		OR	
	(b)	Describe guidelines for use case Models.	**07**
Q.3	**(a)**	Draw a sequence diagram for issuing a book and renewing a book in online library management system.	**07**
	(b)	What is concurrency? Explain 'aggregation concurrency' and 'concurrency Within an object' represented by state model with suitable example.	**07**
		OR	
Q.3	**(a)**	Prepare sequence diagram for booking a train ticket on line.	**07**
	(b)	Explain 'ordered', 'bags', 'sequences' in class diagram with suitable examples.	**07**
Q.4	**(a)**	Describe the criteria for discarding unnecessary and incorrect classes. Give example to justify the answer.	**07**
	(b)	Define the purpose of following terms with suitable example and UML notations (i) swimlane (ii) use case generalization (iii) activity	**07**
		OR	
Q.4	**(a)**	Which are the different criteria to keep the right association in domain class Model.	**07**
	(b)	"Iterative development life cycle is better than the waterfall development life cycle." Explain with Example.	**07**
Q.5	**(a)**	Give the list of common architectural styles. Explain continuous transformation in detail.	**07**
	(b)	What is the purpose of design optimization? Briefly discuss the tasks of design optimization.	**07**
		OR	
Q.5	**(a)**	Explain the following terms in relation to class design. a. Refactoring b. Reification	**07**
	(b)	Mention the importance of analysis and design stages in software development process. Differentiate Domain analysis and Application analysis.	**07**

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