Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – II • EXAMINATION – SUMMER • 2014

Subject code: 1720105 **Date: 20-06-2014**

Subject Name: Object Oriented Methodology & Design

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		Answer the following questions.	**14**
	(a)	What is Association? Explain with an example**.**	
	(b)	What is an UML Activity Diagram ? What are the uses of an Activity diagram?	
	(c)	Define a) Actors, b) Scenarios, and c) Use cases**.**	
	(d)	Differentiate between pattern and frame work.	
Q.2	**(a)**	Indentify Classes and draw class diagram of railway reservation system.	**07**
	(b)	Describe State, Behavior and Identity with respect to an object with relevant example.	**07**
		OR	
	(b)	Draw Usecase, state and sequence diagram for multiplex booking system.	**07**
Q.3	**(a)**	What is refactoring ? Explain in detail with example.	**07**
	(b)	What is pattern ? What are the characteristics of good pattern? List the component that decide template of pattern.	**07**
		OR	
Q.3	**(a)**	Explain Façade pattern with suitable example.	**07**
	(b)	Show the Basic model of MVC architecture and also an alternate view of MVC architecture and implement the Observable and Observer pattern using MVC.	**07**
Q.4	**(a)**	Explain factory pattern in detail with suitable example. State the difference between factory and abstract-factory pattern.	**07**
	(b)	Prepare a state transition diagram washing machine using observer pattern.	**07**
		OR	
Q.4	**(a)**	What is GRASP ? Explain GRASP principles.	**07**
	(b)	Explain Singleton pattern with a diagram.	**07**
Q.5	**(a)**	Explain Creator Pattern with an example.	**07**
	(b)	What are deployment diagrams? What are the basic elements of deployment diagrams. Draw deployment diagram with suitable example.	**07**
		OR	
Q.5	**(a)**	Briefly explain a)Attribute visibility b)Parameter Visibility c)Local visibility d)Global visibility	**07**
	(b)	Explain Adapter pattern with a diagram.	**07**

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