Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME – SEMESTER II (OLD) – • EXAMINATION – SUMMER 2016

Subject Code: 1720105 **Date:19/05/2016**

Subject Name: Object Oriented Methodology & Design

Time:10:30 am to 01:00 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 oriented development? How is it different from conventional methodology? Discuss drawbacks and benefits of OOM.	**07**
	(b)	Explain modularity, cohesion and coupling with example.	**07**
Q.2	**(a)**	Write a programme in java to compare two objects of class and explain with diagram.	**07**
	(b)	Explain interface, abstract class and arraylist by example.	**07**
		OR	
	(b)	Explain constructor, static members and dynamic binding by example.	**07**
Q.3	**(a)**	What is model? Why do we need it? What are different models in OOM? Expalin their relationship by diagrams only.	**07**
	(b)	Define Collection Classes and Explain the Collection Classes in Java and java.util.* package	**07**
		OR	
Q.3	**(a)**	What is use of package? How is it useful as namespace? Explain polymorphism in context of package.	**07**
	(b)	Define the term "Design Pattern". Explain Iterator design pattern with suitable example. Where is it used?	**07**
Q.4	**(a)**	What are singleton and adapter patterns's usages? Expalin them with their application and programme.	**07**
	(b)	Short note: Reflection for RTTI.	**07**
		OR	
Q.4	**(a)**	A GSRTC website supports following functionalities: 1. Ticket Reservation 2. Changing the properties of seat and journey for ticket. 3. Checking time and route for bus. 4. Login to take print for confirm ticket. 5. Checkinh seat availability in bus. Come up with system usecases for above functionalities.	**07**
	(b)	Explain diference between Clonable and Runnable Interface with example.	**07**

Q.5 **Any FOUR** **14**

1. Discuss the MVC based Architecture and its associated MVC design pattern and Develop sample fragment for Drawing Example using Standard design pattern
2. Short Note: Aggregation vs. Association
3. Explain Client Server Architecture by example.
4. What is marshaling and demarshaling in RMI? Explain steps to set up remote object system
5. Write a simple drawing program having basic functionalities.

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