

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**

**MCA - SEMESTER-III • EXAMINATION – SUMMER - 2014**

**Subject Code: 2630002**

**Date: 29-05-2014**

**Subject Name: Fundamentals of Java Programming**

**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) Discuss the features of Java. **05**  
(b) Explain importance of Constructor. Discuss the overloading of methods and constructors with suitable java program code. **06**  
(c) Differentiate finalize(), final and finally with example. **03**
- Q.2** (a) What is Package? State the steps to create and import a package with required java program code. **07**  
(b) Explain enum type with example of java program code. **07**
- OR**
- (b) What is the importance of wrapper classes in Java. Explain the boxing, unboxing and autoboxing conversions with example of java program code. **07**
- Q.3** (a) Explain the use of keywords extends, super and abstract. **03**  
(b) What role does an interface play in multiple inheritances? Also differentiate between abstract class and an interface. Explain with suitable example. **07**  
(c) Difference between String and StringBuffer class. **04**
- OR**
- Q.3** (a) What is collection framework? Discuss Map interface with example. **07**  
(b) Explain formatter and scanner class with example. **07**
- Q.4.** (a) Define checked exceptions and unchecked exceptions. Explain about throwing and catching exceptions using an example of java program code. **07**  
(b) Define Thread. How different way thread is created in Java? Discuss the Thread life cycle with suitable example of java program code. **04**  
(c) What is stream? Explain about different types of stream. **03**
- OR**
- Q.4.** (a) Explain about synchronization of the thread with suitable example of java program code. **06**  
(b) Explain the concept of creating anonymous class with appropriate example of java program code. **05**  
(c) What is the functionality of SimpleDateFormat class. **03**
- Q.5.** (a) Distinguish between AWT and Swing. **04**  
(b) What is the difference between Frame and Dialog? **03**  
(c) Define Applet. How Applet is different than the Java Applications? Explain about Applet Lifecycle with suitable java program code and applet tag. **07**
- OR**
- Q.5.** (a) What is container and component class in Java? Specify different types of components with its events? **05**  
(b) What is Layout Manager? Explain the different types of layout in details. **05**  
(c) Compare the adapter classes with listener interfaces. **04**

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