

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA - SEMESTER-III • EXAMINATION – WINTER • 2015

Subject Code: 630002

Date: 05-01-2016

Subject Name: Fundamentals of Java Programming

Time: 10:30 am - 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)** Do as directed **07**
- (1) What will be the result of the expression $a \% b$ when a and b are of type `int` and their values are $a = -17$ and $b = -6$?
- (2) $15 \& 29 = ?$
- (3) java supports destructor - true / false
- (4) String is a immutable object in java - true / false
- (5) in java class inside class is known as ?
- (6) `isLeapYear()` method is of which class ?
- (7) Which is the last method of applet life cycle ?
- (b)** Explain the features of java in detail **07**
- Q.2 (a)** (1) Discuss enum type with example **04**
- (2) What are Wrapper classes? Explain boxing and unboxing. **03**
- (b)** Explain life cycle of Applet with proper example **07**
- OR**
- (b)** Define package. Explain the steps to create and import a package. **07**
- Q.3 (a)** Explain the use of abstract and final with reference to variable, method and class with example **07**
- (b)** Explain Event Delegation Model with example. **07**
- OR**
- Q.3 (a)** Explain thread life cycle with example **07**
- (b)** What is Layout Manager? Explain the different types of layout in details. **07**
- Q.4 (a)** What is an event listener? List down all event listener and use it for which component. **07**
- (b)** What is collection framework? Discuss Map interface with example. **07**
- OR**
- Q.4 (a)** Discuss `BufferedWriter` and the `BufferedReader` class of java I/O with example. **07**
- (b)** (1) Differentiate AWT and Swing. **04**
- (2) Write a short note on matcher class. **03**
- Q.5 (a)** Explain Random class and Date class with example **07**
- (b)** Explain the concept of Random Access File with example **07**
- OR**
- Q.5 (a)** Write a program To draw a circle in centre of the applet. Circle remains in centre when applet resized. **07**
- (b)** Write a program To create two different threads. One thread to display even numbers between 1 to 100 at every 2 second and other thread to display odd numbers between 1 to 100 at every 4 seconds. **07**
