

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA Integrated - SEMESTER-III • EXAMINATION – SUMMER • 2015

Subject Code: 4430601

Date: 02-05-2015

Subject Name: Java Programming

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)** Write down various features of Java programming language. **07**
- (b)** Answer the following:-
- (i) Explain reference data types in java. **04**
 - (ii) Write down the use of final, static, instanceof keywords. **03**
- Q.2 (a)** Differentiate between following
- (i) Abstract class and interface **03**
 - (ii) Variable shadowing and variable binding **02**
 - (iii) Initializer block and class initializer block **02**
- (b)** Write down various types of inheritance available in java and also explain how java achieves multiple inheritance. **07**
- OR**
- (b)** Explain various access specifiers and their accessibility within class, within package, within sub class outside package and non sub class outside package. Also write down the steps to create package. **07**
- Q.3 (a)** Differentiate between following **07**
- (i) Checked and unchecked exception
 - (ii) throw and throws
- (b)** Answer the following:
- (i) What is enum type in java and explain various features of enum introduced in latest versions of java. **03**
 - (ii) Explain collection framework in brief? What is the role of iterator in collection? **04**
- OR**
- Q.3 (a)** Differentiate between following
- (i) Local class , anonymous class and nested class **05**
 - (ii) Return and throw statement **02**
- (b)** Answer the following:
- (i) How can we create custom exception? Explain it with the help of suitable example. **04**
 - (ii) How can we pass variable number of arguments in a method? Explain it with the help of suitable example. **03**
- Q.4 (a)** Explain life cycle of thread with the help of suitable diagram and name various methods used for each state of thread. **07**
- (b)** Write short note on **07**
- (i) Synchronization
 - (ii) Buffered stream

OR

- Q.4 (a)** Explain four top-level stream classes from the java.io package. **07**
- (b)** Write short note on **07**
- (i) Daemon Threads
 - (ii) Filter stream
- Q.5 (a)** Create a class called Emp {eid, ename} along with all possible constructors, getter, and setter methods and also create suitable GUI using frame which can include two labels, two textfields and a button. When user click on the button , data should be stored in file in the form of object. **07**
- (b)** Write short note on **07**
- (i) Event delegation model
 - (ii) Container class
- OR**
- Q.5 (a)** Create an applet which displays the text in the center of applet. The name and color should be passed as parameter for displaying text and setting background color. **07**
- (b)** Write short note on **07**
- (i) Layout Manager
 - (ii) Adapter class
