

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA - SEMESTER-III • EXAMINATION – WINTER - 2017

Subject Code: 3630005

Date: 04-01-2018

Subject Name: Programming with JAVA

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)** Do as directed : **07**
1. _____ is the base class of all classes in java.
 2. _____ is known as the father of java.
 3. The streams available in java are _____ & _____.
 4. _____ block if present, is always executed irrespective of the occurrence of exception.
 5. The size of char datatype in java is 1 byte - Justify
 6. A class can inherit exactly one interface - Justify.
 7. What is the use of finalize() in java?
- (b)** Explain various features of java in detail. **07**
- Q.2 (a)** What is inheritance ? Explain types of inheritance. Also explain how can "interface" concept eliminate code duplicity problem in java which is generated due to multiple inheritance? **07**
- (b)** Define Thread. How different way thread is created in Java? Discuss the Thread life cycle with suitable example of java program code. **07**
- OR**
- (b)** Distinguish between:
- a) abstract class v/s interface **04**
 - b) String v/s StringBuffer **03**
- Q.3 (a)** What is collection framework? Discuss Map interface with example. **07**
- (b)** Define package. State the steps to create and import a package. Also explain how to set classpath in detail **07**
- OR**
- Q.3 (a)** Explain exception handling mechanism in java using try, catch, throw, throws and finally with suitable example **07**
- (b)** Explain RandomAccessFile with suitable example **07**
- Q.4 (a)** Give differences between Comparable and Comparator interface. Also give example. **07**
- (b)** Define custom exception. Differentiate between checked and unchecked exception (Reported and Unreported exception). **07**
- OR**
- Q.4 (a)** Explain Character Stream and Byte Stream with suitable example. **07**
- (b)** Explain the use of abstract and final with reference to variable, method and class with example **07**
- Q.5 (a)** Discuss BufferedWriter and the BufferedReader class of java I/O with example. **07**

(b) Explain Date class and Calendar class with suitable example **07**

OR

Q.5 (a) Write a program to copy content of one file in another file. Pass both file names as command line argument. **07**

(b) Write a program to generate 10 random nos. and find its average and nos. more than avg. **07**
