

7. (a) What is precedence? Explain how precedence and associativity are useful in evaluating expressions. (7)
- (b) What are constructors used for? Can constructors be overloaded? Write a program in support of your answer. (8)

Roll No. ....

Total Pages : 4

**220305**

**December, 2019**  
**MCA-III SEMESTER**  
**Java Programming (MCA-17-209)**

Time : 3 Hours]

[Max. Marks : 75

*Instructions :*

1. *It is compulsory to answer all the questions (1.5 marks each) of Part -A in short.*
2. *Answer any four questions from Part -B in detail.*
3. *Different sub-parts of a question are to be attempted adjacent to each other.*

**PART - A**

1. (a) Is java a purely object oriented language or not? (1.5)
- (b) What is the difference between float and double? (1.5)
- (c) What is the difference between a constructor and a method? (1.5)

- (d) What is the difference between String and StringBuffer Classes ? (1.5)
- (e) What is the difference between instance variables and class variables? (1.5)
- (f) What is the difference between method overloading and method overriding? (1.5)
- (g) What is the difference between throws and throw? (1.5)
- (h) What is a daemon thread? (1.5)
- (i) What is conversion? How is it different from casting? (1.5)
- (j) Why do we declare a method or class final? (1.5)

### PART - B

2. (a) C++ is an object oriented language older than java, then why did java replace C++ in the most of application development? Explain it. (8)
- (b) What is multithreading? How threads are created in java? Illustrate through suitable code of java. (7)

3. (a) What are the different components of AWT? Explain them. (8)
- (b) What is inheritance? What is the advantage of inheritance? Write a program to access the super class method and instance variable by using super keyword from sub-class. (7)
4. What are Packages? Discuss different types of packages available in java. Explain the procedure of creating and using packages by giving a suitable example. (15)
5. (a) What do you mean by an applet? How do applets differ from application program? Explain the life cycle of an applet. (10)
- (b) What are streams? Write a program which shows how to read data from keyboard and write it to myfile.txt file. (5)
6. (a) What are the exceptions? What is the difference between an exception and an error? Write a program which tells the use of try, catch and finally block. (7)
- (b) What is an interface? How is it different from an abstract class? Write a program to illustrate how to achieve multiple inheritances using multiple interfaces. (8)