

**FOURTH SEMESTER B.Sc. (COMPUTER SCIENCE) DEGREE
EXAMINATION, MAY 2011**

(CCSS)

B.C.A. – Core Course

CA 4B 05 – PROGRAMMING IN JAVA

Time : Three Hours

Maximum : 30 Weightage

Part I

Answer all questions.

1. A constructor is called whenever :
 - (a) An object is declared.
 - (b) An object is used.
 - (c) A class is declared.
 - (d) A class is used.
2. Overloading is otherwise called as :
 - (a) Virtual polymorphism.
 - (b) Transient polymorphism.
 - (c) Pseudo polymorphism.
 - (d) Ad-hoc polymorphism.
3. Which of the following is not a primitive data type in Java?
 - (a) Boolean.
 - (b) Byte.
 - (c) String.
 - (d) Double.
4. The statements

```
byte var = -9 ;  
System.out.println(var) ;
```

prints
 - (a) - 9.
 - (b) -10.
 - (c) - 119.
 - (d) - 118.
5. Is *null* an object?
 - (a) Yes.
 - (b) No.
 - (c) Sometimes yes.
 - (d) None of these.
6. Exceptions that are expected to possibly occur are called :
 - (a) Checked exceptions.
 - (b) Unchecked exceptions.
 - (c) Runtime exceptions.
 - (d) Errors.

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7. A class variable is a variable that is declared inside a class as :

- (a) Final.
- (b) Static.
- (c) Abstract.
- (d) Extends.

8. Which of the following packages needs to be imported to use the *String Tokenizer* class?

- (a) java.io.
- (b) java.util.
- (c) java.lang.
- (d) java.net.

9. Which of the following is a statement that does nothing?

- (a) 1.
- (b) 1 = 1.
- (c) null.
- (d) ; .

10. The expression :

(int) Math.floor (m + 0.5)

is mathematically equivalent to :

- (a) *(int) Math.floor (m - 0.5)*.
- (b) *(int) Math.floor (m + 0.5)*
- (c) *Math.round(m)*.
- (d) None of these.

11. To promote encapsulation, Java provides an access modifier of type :

- (a) Public.
- (b) Private.
- (b) Protected.
- (d) None of these.

12. Which of the following operators don't always evaluate all their operands?

- (a) &&
- (b) ?:
- (c) ||
- (d) All of the above.

(12 × ¼ = 3 weightage)

Part II

Answer all questions.

13. Define JVM.
14. Differentiate between Overloading and Overriding.
15. What are different access specifiers supported by Java.
16. Explain how inheritance can be implemented in Java.
17. What do you mean by an exception?
18. What is an applet?
19. Define multithreaded programming.
20. What is a constant? How it can be defined in Java?
21. What do you mean by operator precedence and associativity?

(9 × 1 = 9 weightage)

Part III

Answer any five questions.

22. Explain the concept of J2EE.
23. Explain how a scrollbar can be implemented in Java.
24. Describe the different looping statements supported by Java.
25. Explain the concept of array of objects.
26. Describe how the mouse listener interface can be implemented in Java.
27. Write a simple Java program to show the graphic programming capabilities of Java.
28. Explain the different data-types supported by Java.

(5 × 2 = 10 weightage)

Part IV

Answer any two questions.

29. Explain the important features of Object Oriented Programming.
30. Explain how a user defined exception can be implemented in Java with an example program.
31. Describe the steps involved in connecting a Java program to a database using JDBC.

(2 × 4 = 8 weightage)