



Seat No. : _____

XY-134

B.C.A. Sem. IV

April-2013

CC-210 Core Java

Time : 3 Hours]

[Max. Marks : 70

1. (a) List and explain any three Java features in detail. 7

OR

Explain all Java primitive data types in detail.

- (b) Explain the concept of method overloading and constructor overloading in Java with an example. 7

OR

Answer the following :

- (1) Explain the use of 'this' keyword in constructor and instance variable hiding. 4
- (2) What will be the values of x, m and n after execution of the following statements ? 3

```
int x, m, n;
```

```
m = 10;
```

```
n = 15;
```

```
x = ++ m + n ++;
```

2. (a) Explain the operation of the append() and reverse() methods of the StringBuffer class with an example and also give the difference between String and StringBuffer class. 7

OR

How to create, declare, initialize and use a one-dimensional array in Java ? And also explain the concept of pass by reference in concern with a one-dimensional array with an example.

- (b) List out the names of wrapper classes and explain Integer wrapper class in detail with an example. 7

OR

Answer the following :

- (1) Explain how to use `binarySearch()` and `fill()` methods of an `Arrays` class. 4
- (2) What will be the values of `l` and `m` after execution of the following statements ? 3

`int i = 40;`

`int j = 80;`

`int k = 40;`

`int l = i / k * 2 + j;`

`int m = i / (k * 2) + j;`

3. (a) What is exception handling ? Explain the process of creating custom exception and handling it in Java. 7

OR

Explain the use of `try`, `catch` and `finally` keyword and also explain how a method can throw the exception in Java, with an example.

- (b) Explain the concept of an interface and also explain how an interface can be used for achieving multiple inheritance in java with an example. 7

OR

Answer the following :

- (1) Explain the use of 'super' keyword in java with an example. 4
- (2) Differentiate between abstract class and interface. 3

4. (a) What is Multithreading ? Explain Thread life cycle. 7

OR

- (1) What do you mean by package ? Explain how can we create user defined package and how can we access it. Explain with an example. 4
- (2) Discuss the different ways in which a thread can be created in Java. 3

(b) What is an applet ? Explain the life cycle of an applet. 7

OR

List and explain attributes of the <Applet> tag. 7

5. Answer the following : 14

(1) _____ JDK tool is used for compiling a java program.

- (a) java (b) javac
(c) javap (d) javadoc

(2) After the successful compilation of a Java program, bytecodes are contained in _____ file.

- (a) .java (b) .class
(c) .obj (d) .exe

(3) Variables that are shared by every instance of a class are _____.

- (a) class variables (b) public variables
(c) private variables (d) illegal

(4) If *String movie = new String("West Side Story");*, the value of *movie.indexOf('1')* is _____.

(5) _____ operator is used to create an array.

(6) Wrapper classes are defined in the _____ package.

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

(7) In java, Throwable is the parent class for all Exception and Error classes.

[True / False]

(8) When an interface method is implemented in a class, it must be declared as _____.

- (a) public (b) private
(c) protected (d) None of these

- (9) An abstract class can't be instantiated. [True / False]
- (10) The drawOval() method is an instance method of the _____ class.
- (a) Graphics (b) Thread
- (c) Applet (d) Event
- (11) The _____ method is used to set the name of a thread.
- (a) getName() (b) isAlive()
- (c) setName() (d) setPriority()
- (12) An applet requires main() method for execution. [True / False]
- (13) An applet can be executed by placing the _____ tag in HTML page.
- (14) The minimum priority of a thread is _____.
- (a) 1 (b) 5
- (c) 10 (d) 20
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