



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, ++; 11 + 15

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