

**AP-107**

April-2017

BCA., Sem.-IV (CBCS)

CC-210 : Core Java

Time : 3 Hours]

[Max. Marks : 70

1. (a) Explain the following : 8

- Ternary Operator
- 'this' keyword
- Constructor
- Constant

OR

Explain The following : 8

- Method Overloading
- Static Method
- Bytecode,
- Class

(b) Discuss the features of Java. 6

OR

Explain : Bitwise Operators. 6

2. (a) Explain the following methods and terms : 8

- replace()
- charAt()
- NOT Operator
- equals()

OR

Explain the following methods. 8

- binarySearch()
- capacity()
- parseDouble()
- indexOf()

(b) Explain the Integer and Boolean wrapper class in java. 6

OR

Explain the character class in java with all its methods. 6

3. (a) Answer the following : 8  
I. Differentiate between Interface and Abstract Class.  
II. Explain : Multiple Inheritance. How is it implemented in java ?  
**OR**  
Answer the following : 8  
I. Explain the Exception handling mechanism in java giving a suitable example.  
II. Explain the concept of Abstract Class with suitable example.
- (b) Explain : Checked and Unchecked Exceptions. Explain the concept of user defined exception also. 6  
**OR**  
Explain the different types of methods that cannot be overridden in subclass. 6
4. (a) Answer the following : 8  
I. What is a package ? Explain the built-in packages in java.  
II. Explain life cycle of a thread.  
**OR**  
Answer the following :  
I. Explain drawPolygon() and drawPolyline() methods with proper syntax.  
II. Explain : The Applet tag
- (b) Explain the life cycle of an applet with a diagram. Also explain all the methods of Applet class. 6  
**OR**  
Explain : Thread Priorities. Also explain join() and sleep() method. 6
5. Answer the following : 14  
(1) What is the range of short data type in java ?  
(a) -128 to 127  
(b) -32,768 to 32,767  
(c) -2,147,483,648 to 2,147,483,647  
(d) None of mentioned
- (2) The new operator  
(a) creates a variable called new  
(b) returns a pointer to new variable  
(c) obtains memory for a new variable  
(d) checks for memory availability
- (3) What is the return type of constructor ?  
(a) int  
(b) char  
(c) void  
(d) None of mentioned

(4) What is the output of the following program ?

```
class select
{
    public static void main(String args[])
    {
        int var1=5;
        int var2=6;
        if((var2=1) == var1)
            System.out.print(var2);
        else
            System.out.print(++var2);
    }
}
```

- (a) 1 (b) 2  
(c) 3 (d) 4

(5) If you declare an integer array as follows, what is contained in the element num [3] ? `int[] num = {101, 102, 103, 104, 105, 106};`

- (a) 102 (b) 103  
(c) 104 (d) Garbage value

(6) Which of these method of class StringBuffer is used to concatenate the string representation to the end of invoking string ?

- (a) append() (b) join()  
(c) concat() (d) All of the mentioned

(7) Which of these keywords is used to refer to member of base class from a sub class ?

- (a) super (b) this  
(c) upper (d) None of the mentioned

(8) Which of these keywords is used by a class to use an interface defined previously ?

- (a) import (b) Imports  
(c) Implement (d) implements

(9) Which of these keywords is used to manually throw an exception ?

- (a) try (b) catch  
(c) thrown (d) throw

(10) Which of these access specifiers can be used for a class so that it's members can be accessed by a different class in the different package ?

- (a) private (b) public  
(c) protected (d) Default

- (11) Java achieved multitasking concept using \_\_\_\_\_.  
(a) class (b) inheritance  
(c) thread (d) polymorphism
- (12) To pass the values in an applet, the \_\_\_\_\_ tag is used.  
(a) <head> (b) <alt>  
(c) <param> (d) <code>
- (13) drawstring() method is defined in \_\_\_\_\_ class.  
(a) Graphics (b) Java.io  
(c) Java.lang (d) None of the mentioned
- (14) Which of these methods of String class is used to obtain character at specified index ?  
(a) Char() (b) charAt()  
(c) indexOf() (d) none of the mentioned