SC-103

October-2017

B.C.A. Sem.-IV

CC-210 : Core Java

Time : 3 Hours] **[Max. Marks : 70**

1. (A) Answer the following questions :

    (i) Explain the Java Architecture with diagram. **4**

    (ii) Which Java class is used for GUI output ? Explain with example. **3**

OR

Answer the following questions :

    (i) List out various categories of operators and explain any one with example.

    (ii) How GUI Input is offered in Java ? Explain with example.

  (B) Answer the following questions :

    (i) What is Method Overloading ? Explain with example. **4**

    (ii) Define : Literals, Keywords, Character Data type. **3**

OR

Answer the following questions :

    (i) How Constructor Overloading is implemented ?

    (ii) Define : Constants, Identifiers, Boolean Data Type.

2. (A) Answer the following questions :

    (i) Compare "switch" and "if…else" control statements with suitable example. **4**

    (ii) How "nested loops" are used ? Explain. **3**

OR

Answer the following questions :

    (i) Compare "While" and "Do….while" loops used in Java.

    (ii) How Conditional operators are used ? Explain.

(B) Answer the following questions :

(i) Write a short note on "Passing array to methods". **4**

(ii) Explain with example : isUpperCase( ), capacity( ), replace( ) **3**

OR

Answer the following questions :

(i) Write a short note on "Multidimensional Array".

(ii) Explain with example: isLetterOrDigit( ), indexOf( ), append( )

3. (A) Answer the following questions :

(i) How Exception Handling is implemented in Java ? Explain with example. **4**

(ii) What is Method Overriding ? Give suitable example. **3**

OR

Answer the following questions :

(i) Explain "Custom Exception" with suitable example.

(ii) How "Constructor Calling" is implemented during inheritance ?

(B) Answer the following questions :

(i) Write a short note on : Abstract class & its implementation. **4**

(ii) Explain briefly "finally" block. **3**

OR

Answer the following questions :

(i) Write a short note on : multiple interfaces & its implementation into one class.

(ii) Explain briefly "super" keyword.

4. (A) Answer the following questions :

(i) Draw and explain Thread Life Cycle. **4**

(ii) Draw Access Protection Chart and explain. **3**

OR

Answer the following questions :

(i) What is Package ? Explain any three Built-in package.

(ii) How to deal with Thread Priority ? Explain.

(B) Answer the following questions :

(i) Draw and explain Life cycle of an Applet. **4**

(ii) Explain briefly importing a package. **3**

OR

Answer the following questions :

(i) Explain any two methods of Graphics class with suitable example.

(ii) Explain briefly sleep( ) method of thread.

5. Do as directed : **14**

(1) Compiled Java code is maintained in _____ .
   (a) Byte code   (b) ASCII code
   (c) Unicode   (d) Grey code

(2) Multiple comments can be added to Java file using _____ .
   (a) //.....//   (b) /* .....*/
   (c) */...../*   (d) **.....**

(3) A keyword that refers to current class object is _____ .
   (a) this   (b) current
   (c) pointer   (d) None of the above

(4) Operators like ++, -- are called as _____ .
   (a) Relational Operators   (b) Ternary Operators
   (c) Assignment Operators   (d) Increment/decrement Operators

(5) _____ method checks whether entered character is black space or not.
   (a) isBlank( )   (b) isBlankSpace( )
   (c) isWhiteSpace( )   (d) isSpace( )

(6) Which of the following is Wrapper class ?
   (a) Short   (b) Long
   (c) Double   (d) All of the above

(7) Output of the following code segment is :
```
int i=0, x= –10;
while(i<=10)
{
 if(i%2== 1)
   x=x+(i*i);
  i++;
}
```
   (a) i=10, x=155   (b) i=11, x=155
   (c) i=10, x=154   (d) i=11, x=154

(8) Valid Array class method to search a value in Array Object is _____ .

(a) binSearch( )   (b) searchBinary( )

(c) binarySearch( )   (d) None of the above

(9) Runtime Exception is part of the type _____ .
(a) Checked Exception   (b) Unchecked Exception
(c) Notchecked Exception   (d) None of the above

(10) Super class constructor can be called using _____ keyword.
(a) super   (b) base
(c) parent   (d) higher

(11) Which of the following(s) cannot be overridden ?
(a) final class   (b) final method
(c) static method   (d) All of the above

(12) Which interface is also used to run applet ?
(a) Throwable   (b) Runnable
(c) Paint   (d) None of the above

(13) Which Access Modifier is visible within a package ?
(a) default   (b) public
(c) protected   (d) All of the above

(14) To draw and fill color within a rectangle with rounded corners, the method is _____ .
(a) fillRoundRect( )   (b) fillRoundedRect( )
(c) fillRectRounded( )   (d) FillRectRoundedCorner( )

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