AK-106

April-2023
BCA., Sem.-IV
CC-210 : Core JAVA

Time : 2:30 Hours]   **[Max. Marks : 70**

1. (A) Differentiate between Java and C++.   7

   (B) What are classes and objects in Java ? Explain the process of garbage collection in Java.   7

                 OR

   (A) List and explain features of Java.   7

   (B) What is a method ? Why methods are used in Java programing ? Explain the concept of method giving suitable example.   7

2. (A) What is an interface ? Differentiate between interface and abstract class.   7

   (B) Define array. How to declare array in Java ? Explain the different types of arrays supported in Java.   7

                 OR

   (A) What are static methods ? Can the static methods be overridden ? Why is the main method static in Java ?   7

   (B) What is inheritance ? Explain the use of 'super' keyword giving suitable example.   7

3. (A) What is a package ? How are they created and used ? Discuss : Java.lang package.   7

   (B) What is exception ? Explain exception handling mechanism.   7

                 OR

   (A) What is wrapper class ? Explain any two wrapper classes.   7

   (B) List methods of String class. Explain any three methods in detail.   7

4. (A) What is a Thread ? Explain different states of Thread.   7

   (B) What is Thread priority ? Explain the concept giving suitable example.   7

                 OR

   (A) Discuss : Life cycle of an applet.   7

   (B) Discuss : Applet tag in detail.   7

5. Attempt any 7 :   **14**

(i)   Which method is used to find out that a thread is still running or not ?

(ii)   What is the base class in Java from which all classes are derived ?

(iii)   Which keyword is used to prevent inheritance ?

(iv)   'this' keyword is used to refer to the current object. [True/False]

(v)   Protected access specification allows access to all classes in the same package and sub-classes in any package. [True/False]

(vi)   Interfaces cannot be extended. [True/False]

(vii)   Which of these cannot be used as variable name in Java ?

    (a)   keywords

    (b)   identifiers

    (c)   both keywords and identifiers

    (d)   None of the above

(viii) What will be the output of the following code ?

```
class test {
        public static void main(String args[])
        {
                int g = 3;
                System.out.print(++g * 8);
        }
}
```

    (a)   32   (b)   33

    (c)   24   (d)   25

(ix)   Which method is used to perform some action when the object is to be destroyed ?

    (a)   delete()   (b)   main()

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

(x)   _____ method returns the current capacity of the storage available for characters in the buffer.

    (a)   charAt()   (b)   length()

    (c)   append()   (d)   capacity()

(xi)   _____ is the base class of all Exception classes.

    (a)   Throwable   (b)   RuntimeException

    (c)   IOException   (d)   None of the above

(xii)   _____ method is called each time an AWT-based applet's output must be redrawn.

    (a)   repaint()   (b)   paint()

    (c)   update()   (d)   All of the above

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