PROGRAMMING IN JAVA

Assignment1

TYPE OF QUESTION: MCQ

Number of questions: 15 **Total mark: 15× 1 = 15**

QUESTION 1:

Which of the following is true?

a. Java uses only interpreter.
b. Java uses only compiler.
c. Java uses both interpreter and compiler.
d. None of the above.

Correct Answer: c

Detailed Solution:
Creating a *.class* file from *.java* using *javac* command is a compilation task, whereas execution of a *.class* file using *java* or *appletviewer* command is the process of interpretation.

QUESTION 2:

A Java file with extension '.class' contains

a. Java source code
b. HTML tags
c. Java Byte code
d. A program file written in Java programming language

Correct Answer:c

Detailed Solution:
A *.class* file is a complied version of the .java file in Byte code (it is a kind of object code with JVM (Java Virtual Machine) as the target machine.

QUESTION 3:

Applet execution is

a. Server sided
b. Client sided
c. Both a and b
d. None of the above

Correct Answer:b

Detailed Solution:
An applet is embedded in an HTML file, which a browser machine (i.e., client) can download from a server hosting the HTML file. The browser machine then run the HTML file. Thus, an applet execution is always client sided.

QUESTION 4:

Which of the following is a Class in Java?

a. int
b. String
c. short
d. double

Correct Answer:b

Detailed Solution:
The class String is defined in *java.lang* package, which is a default package in any Java program. Others are data type in Java programming language.

QUESTION 5:

What is the length of the applet window made by this program?

```
importjava.awt.*;
importjava.applet.*;
publicclassmyAppletextends Applet{
        Graphic g;
g.drawString("A Simple Applet", 20, 20);
    }
```

a. 20
b. The same as the computer screen
c. Compilation Error

d. Runtime Error

Correct Answer:c

Detailed Solution:
To implement the method *drawstring()* first weneed to overwritethe*paint()* method. In other words, without *paint()* method we cannot use *drawstring()*method.

QUESTION 6:

Which of the following is **not a correct** statement?

a. It is always necessary to use *new* operator to initialize an array.
b. Array can be initialized using comma separated expressions surrounded by curly braces.
c. Array can be declared and memory can be allotted in one statement.
d. An array can be declared in one statement and memory can be allocated in other statement.

Correct Answer: a

Detailed Solution:
Array can be initialized using both new and comma separated expressions surrounded by curly braces example :inta [ ] = new int[5]; int [] a; a = new int [10]; and int a [] = { 0, 1, 2, 3, 4};

QUESTION 7:

Which of the following is an incorrect array declaration?

a. int[] a = new int[10];
b. int [ ] a;
c. `int[][] a = new int[10];`
d. `int[][] a = {{1, 2, 3}, {1, 2, 3}};`

Correct Answer:c

Detailed Solution:
In the left hand side, it is a declaration for two-dimensional array, whereas at the right side it uses *new* operator to allocate a memory for a one-dimensional array.

QUESTION 8:

Which of the following **cannot** be used for a variable name in Java?

a. identifier
b. final
c. malloc
d. calloc

Correct Answer:b

Detailed Solution:
*final*is a reserved keyword in Java, which cannot be used for naming a variable or class.

QUESTION 9:

Which of the following is **not** an object-oriented programming paradigm?

a. Encapsulation
b. Inheritance
c. Polymorphism
d. Dynamic memory allocation

Correct Answer:d

Detailed Solution:
Dynamic memory allocation is a memory allocation strategy and not a programming paradigm.

QUESTION 10:

What is the output of this program?

```
class Increment {
publicstaticvoid main(String args[])
        {
inti = 3;
System.out.print(++i * 8);
        }
    }
```

a. 24

b. 25
c. 32
d. Runtime error

Correct Answer: c

Detailed Solution:
First the value of i will be incremented and then multiplication and the result will be printed.

QUESTION 11:

```
public class Test {
      public static void main(String[] args){
         int[] x = {1, 2, 3, 4};
         char[] y = {'a', 'b', 'c', 'd'};
         for (inti = 0; i<x.length; i += 2)
            for (int j = y.length-1; j > 0; j--)
               if (((i+j) % 2) == 0)
                  System.out.print(x[i]);
               else
                  System.out.print(y[j]);
      }
   }
```

Which of the following does this program print?

Note: The value of k % 2 is 0 only when k is even.

a. d1bd3b
b. d1b1d3b3
c. d12cd34c
d. d1b2c2d3b4c4

Correct Answer: a

QUESTION 12:

Which of the following features are **not** common in both Java and C++?

a. The class declaration.
b. The access modifiers.
c. The encapsulation of data and methods.

d. Multiple inheritancefrom class

Correct Answer: d

Detailed Solution:
C++ supports multiple inheritances whereas Java does not.

QUESTION 13:

Choose the wrong statement.

a. Appletscan read from or write to a file in the local computers.
b. Applets cannot communicate with other servers in the networks.
c. Appletscan run any java program.
d. Appletscan be viewed by Java enabled browser.

Correct Answer: b

Detailed Solution:
Java applets, like other Java programs, can use the API defined in the java.net package to communicate across the network. A Java applet can communicate with server applications that run on the same host as the applet. This communication does not require any special setup on the server.
Many browsers such as Chrome, Safari, Mozilla, Internet Explorer has stopped supporting the execution of applet code. However, some browser support the view of applets with special plug-in software.

QUESTION 14:

Java is a platform independent programming language because

a. It is written almost similar to English language.
b. It compiles to an intermediate code targeting a virtual machine, which can be interpreted by an interpreter for a given OS.
c. Java compiler translates the source code directly to the machine level language.
d. It follows the concept of “write once and compile everywhere”.

Correct Answer: b

Detailed Solution:
The compiled code(bytecode) can be executed(interpreted) on any platform running a JVM.

QUESTION 15:

So far the declaration of main() method is concerned, which of the following specification is not valid?

a. void
b. public
c. static
d. private

Correct Answer: d

Detailed Solution:
The *main()* method should not return anything, hence its return type is *void*, it should be declared as *public*, as the method should be invoked externally, it is being static method, no object of the class in which the method is to be created.

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