PROGRAMMING IN JAVA

Assignment2

TYPE OF QUESTION: MCQ

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

QUESTION 1:

Which of the following is **true** regarding the execution of Java applets?

a. HTML file is mustto run an applet.
b. Any file containing the <APPLET> tag can be used during an execution.
c. Compilation of source is not needed for applet execution.
d. The source file should be in the local machine.

Correct Answer:b

Detailed Solution:
Any file containing a valid <APPLET> … </APPLET> is sufficient for appletviewer to run an applet provided that the code value in the tag correctly specify the location of the .class file. This location can be anywhere.

QUESTION 2:

Which of the following is a valid specifier with the *main()* method?

a. public
b. private
c. protected
d. default (i.e., nothing)

Correct Answer:a

Detailed Solution:

The *main()*method cannot be declared as private/ protected as it is to be invoked externally. It should be declared with *public* access specifier always.

QUESTION 3:

Consider the following object declaration statement

```
Scanner inp= new Scanner(System.in);
```

What is `System.in` in this declaration?

a. Any file storing data
b. Reference to standard input device, that is, keyboard
c. Reference to a scanner as an input device
d. It is a mouse as an input device

Correct Answer:b

Detailed Solution:
System.in refers to the keyboard as standard input device.

QUESTION 4:

Which of the following is a valid declaration of an object of class, say Box?

a. Box obj = new Box();
b. Box obj = new Box;
c. obj = new Box();
d. new Box obj;

Correct Answer:a

Detailed Solution:
Others are invalid declarations.

QUESTION 5:

Which of the following is a Class in Java?

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

Correct Answer:b

Detailed Solution:

String is class defined in *java.lang* package, whereas *int, short, double* are the built-in data type in Java programming language.

QUESTION 6:

Which of the following statement is **incorrect**?

a. Every class must contain a main() method
b. Applets do not require a main() method at all
c. There can be only one main() method in a program
d. main() method must be made public

Correct Answer:a

Detailed Solution:
A class can be declared with *main()* method. There is no *main()* method to be defined in a class which extends Applet. If a program contains more than one classes, then only one class will include the *main()* method. The *main()* method should be declared as public, no other specifier is valid.

QUESTION 7:

What is the output of the following program?

```
     public class Test {
public static void main(String [ ] args) {
              Test t = new Test();
          t.start();
}
void start(){
          int a = 4;
          int b = 5;
          System.out.print("" + 8 + 3 + "");
          System.out.print(a + b);
          System.out.print(" " + a + b + "");
          System.out.print(foo() + a + b + " ");
          System.out.println(a + b + foo());
          }
          String foo(){
          return "foo";
          }
```

```
        }
```

a. 839 45foo45 9foo
b. 9 7 7 foo34 34foo
c. 72 34 34 foo34 34foo
d. 9 7 7 foo 7 7foo

Correct Answer: a

Detailed Solution:
You should check the resultwith running the program.

QUESTION 8:

What is the return type of a method that does not return any value?

a. int
b. float
c. void
d. double

Correct Answer:c

Detailed Solution:
If a method does not return anything, then its return type should be void.

QUESTION 9:

What is the process of defining more than one method in a class having the same name but differentiated by method signature?

a. Method overriding
b. Method overloading
c. Encapsulation
d. Inheritance

Correct Answer:b

Detailed Solution:

If you define the same method (i.e., with same return type and list of arguments) in a sub class, then it is called *method overriding*. Whereas it is called *method overloading* (also called as *polymorphism*) when it is defined with the same method name but with differentreturn type and/or different list of arguments(this is called signature of a method) within a class.

QUESTION 10:

Which of the following is called when a method having the same name as that the name of the class where it is defined?

a. abstract
b. this
c. final
d. constructor

Correct Answer: d

Detailed Solution:
In a class, if more than one method having the same name but with different signature is used, then it is called a constructor.

QUESTION 11:

```
public class Test{
public static void main(String args[]){
int x = 9;
if (x == 9) {
int x = 8;
System.out.println(x);
}
}
}
```

a. 8.
b. 9.
c. Compilation error.
d. Runtime error.

Correct Answer:c

Detailed Solution:

Variable x is already defined in method main ();

QUESTION 12:

Which of the following statements is/ are **incorrect**?

a. Two or more methods with the same name can be differentiated on the basis of their parameters data type.

b. Two or more method having the same name can be differentiated on the basis of number of parameters.

c. Any already defined method in Java library can be defined again in the program with different data type of parameters.

d. No method can call another method without creating an object of the class to which it is defined.

Correct Answer:d

Detailed Solution:

Java supports (a), (b) and (c) as the programming feature called method overloading (also called polymorphism).Constructor for example can be called without creating any object.

QUESTION 13:

```
class Box    {
          intwidth;
          intheight;
          intlength;
   }

classTest    {
public static void main(String args[])    {
          Box b1 = new Box();
                    Box b2 = new Box();
                    b1.height = 1;b1.length = 2;b1.width = 3;
b2 = b1;
System.out.println(b2.height);
      }
```

```
        }
```

a. 1
b. 2
c. 3
d. NULL

Correct Answer: a

Detailed Solution:
When we assign an object to another object of same class, all the elements of right side object get copied to object on the left side of = operator.

QUESTION 14:

What is the maximum number of arguments that can be passedto a method in Java?

a. No arguments
b. One
c. Any number of arguments
d. Varies from one compiler to another

Correct Answer:c

Detailed Solution:
Logically, there is no limit on the number of arguments that can be planned to pass values to a method.

QUESTION 15:

What is not the use of “this” keyword in Java?

a. Passing itself to another method
b. Calling another constructor in constructor chaining
c. Referring to the instance variable when local variable has the same name
d. Passing itself to method of the same class

Correct Answer:d

Detailed Solution:

The keyword *this* refers to the current class instance in which it is referred. In fact, *this* can be used to invoke current class method, can be passed as an argument in the method call and also it can be used to invoke current class constructor. Hence, all the statements (a)-(c) are correct except (d).

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