



PROGRAMMING IN JAVA

Assignment 1

TYPE OF QUESTION: MCQ

Number of questions: 10

Total mark: $10 \times 1 = 10$

QUESTION 1:

What is the incorrect statement about bytecode?

- a. Java when compiles the source code, it converts it to bytecode.
- b. JVM (Java Virtual Machine) is an interpreter of bytecode.
- c. Bytecode is not portable and it needs to be compiled separately for each platform.
- d. JVM offers a protected environment which helps in enhanced safety for the system.

Correct Answer: c

Detailed Solution:

The program written to execute is saved as .java and this is called source code. This is compiled using command javac as javac filename.java which produces bytecode (.class file) which is portable. This bytecode is passed to interpreter for running using the command java as java filename. As this bytecode is portable, Java achieved platform independence. JVM is a part of JRE which runs the program (interpreter). JVM provides a safe runtime environment enabling automated exception handling also.

QUESTION 2:

Consider the following program

```
public class Test {  
    public static void main(String[] args) {  
        /***** boolean b = false; *****/ //n1  
        String b = "false";  
        switch(b) { // n2  
            case "False":  
                System.out.println("a");  
            }  
        }  
    }  
}
```



What is the output of the above code?

- a. a
- b. Compiler error due to line n1
- c. Compiler error due to line n2
- d. Print nothing

Correct Answer: d

Detailed Solution:

There is no matching case statement, hence it will print nothing.

QUESTION 3:

Which one of the following is not a primitive datatype?

- a. byte
- b. short
- c. class
- d. long

Correct Answer: c

Detailed Solution:

class is not a primitive data type.

QUESTION 4:

Which of the following is not a keyword in java?

- a. final
- b. super
- c. integer
- d. extend

Correct Answer: c, d

Detailed Solution:

Here, final and super are reserved keywords in Java, which cannot be used for naming a variable or class. Integer and extends are the keywords in Java.



QUESTION 5:

Consider the following program.

```
public class Test{  
    public static void main(String[] args){  
        int a = 5;  
        a +=6;  
        switch(a-1){  
            case 5: System.out.print("10");break;  
            case 10: System.out.print("15");  
                    System.out.print(((a%2 ==0) ? "-even-" : "-odd-"));  
            default: System.out.print(a%2);    }  
        }  
    }  
}
```

What will be the output of the program if it is executed?

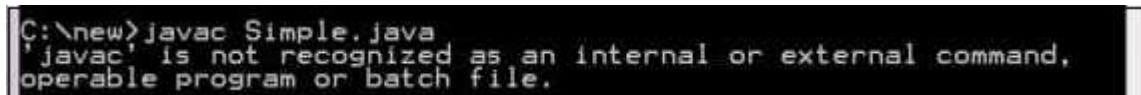
- a. 15-even-1
- b. 15-odd-1
- c. 15-even-
- d. 15-odd-

Correct Answer: b

Detailed Solution:

Test by run

QUESTION 6:



```
C:\new>javac Simple.java  
'javac' is not recognized as an internal or external command,  
operable program or batch file.
```

Why does the error “javac is not recognized as an internal or external command” occur?

- a. Path is not set for java
- b. JDK is not correctly installed
- c. .class file is not found
- d. javac jar is missing from java library



Correct Answer: a

Detailed Solution:

Both java and javac command can't be used if path environment variable is not set.

QUESTION 7:

Following is a piece of code where some parts of a statement is missing:

```
public class Question{
    public static void main(String args[]){
        char npTEL[]={ '1', '2', '3', '4', '5', '6' };
        System.out.print(_____);
    }
}
```

In the following, some options are given. You have to choose the correct option(s) for the argument in *System.out.print()* function to print the value **102**.

- a. `npTEL[npTEL.length-2] + npTEL[0]`
- b. `npTEL[0] + npTEL[npTEL.length-2]`
- c. `"" + npTEL[npTEL.length-2] + npTEL[0]`
- d. `"" + npTEL[0] + npTEL[npTEL.length-2]`

Correct Answer: a, b

Detailed Solution:

`npTEL[npTEL.length-2] + npTEL[0]` or `npTEL[0] + npTEL[npTEL.length-2]` will evaluate the sum of the ascii values of 1 and 5.

QUESTION 8:

Which of the following concept that Java doesn't support?

- a. inheritance
- b. serialization
- c. goto
- d. array

Correct Answer: c



Detailed Solution:

Java does not support goto, it is reserved as a keyword just in case they wanted to add it to a later version. Unlike C/C++, Java does not have goto statement, but java supports label.

QUESTION 9:

The subsystem of JVM that is used to load class files is known as _____.

- a. Classloader
- b. JRE
- c. JDK
- d. Compiler

Correct Answer: a

Detailed Solution:

Classloader is part of JVM that helps load class files.

QUESTION 10:

What is the value of total after executing the following code snippet?

```
int mark = 5;
int grace = 2;
int total = mark + (mark > 6 ? ++grace : --grace);
```

- a. 6
- b. 5
- c. 4
- d. 3

Correct Answer: a

Detailed Solution:

In ternary expressions, only one of the two right-most expressions are evaluated. Since mark > 6 is false, --grace is evaluated and ++grace is skipped. grace is changed from 2 to 1 and total becomes mark + (1) which means 5 + 1 = 6.
