



PROGRAMMING IN JAVA

Assignment 2

TYPE OF QUESTION: MCQ

Number of questions: 10

Total mark: $10 \times 1 = 10$

QUESTION 1:

Following is a program given for this question.

```
public class Question{
    public static void main(String[] args){
        int[] x = {222, 210, 012};
        for(int i = 0; i < x.length; i++){
            System.out.print(x[i] + "");
        }
    }
}
```

What will be the output of the above program?

- a. 22221010
- b. 12222101
- c. 22101010
- d. 22221012

Correct Answer: a

Detailed Solution:

Since, `int[2]` numeral value have 0 in leading, therefore, it's taken as octal base (8). So, it's corresponding decimal value is $(2 \times 8^0) + (1 \times 8^1) = 10$.

QUESTION 2:

When an array is passed to a method, what value does the method receive?

- a. Reference of the array.
- b. Copy of the array.
- c. First element in the array.
- d. Length of the array.

Correct Answer: a



Detailed Solution:

Reference of the array is passed to a method in Java.

QUESTION 3:

Following is a program given for this question.

```
public class Main{  
    public static void main(String args[]){  
        byte x = 28;  
        x++;  
        x++;  
        System.out.print(x);  
    }  
}
```

What will be the output of the above program?

- a. 28
- b. -29
- c. 30
- d. -31

Correct Answer: c

Detailed Solution:

The increment operator ++ works here in the normal scenario as there is no assignment operator. So, it will not give any difference between ++x and x++.

QUESTION 4:

How many bits are needed for float and double in Java, respectively?

- a. 32 and 64
- b. 32 and 32
- c. 64 and 64
- d. 64 and 32

Correct Answer: a

Detailed Solution:

Float needs 4 bytes or 32 bits and Double needs 8 bytes or 64 bits.



QUESTION 5:

Which of the following is a valid *automatic type conversion* in Java?

- a. short to byte
- b. float to long
- c. int to short
- d. int to long

Correct Answer: d

Detailed Solution:

Automatic type conversion is possible in the following sequence (*reverse is not possible*):

byte → short → int → long → float → double

QUESTION 6:

Consider the following program and identify the output.

```
public class Question{
    public static void main(String[] args){
        short x = 10;
        x = x * 5;
        System.out.print(x);
    }
}
```

- a. 5
- b. 10
- c. 50
- d. Compilation error

Correct Answer: d

Detailed Solution:

Compilation Error in “`x = x * 5;`”. This is due to *lossy conversion from int to short*. It works if the type casting is followed, for example, `x = (short) (x * 5);`

QUESTION 7:

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

- a. Student obj = new Student;
- b. Student obj = new Student();



- c. obj = new Student();
- d. new Student obj;

Correct Answer: b

Detailed Solution:

When an object is to be declared it needs to be instantiated, hence the correct syntax of declaring an object is (b).

QUESTION 8:

What is the output of the following program?

```
public class Question{
    public static void main(String[] args){
        int[] A = {0,1,2};
        for(int i = 0; i < A.length; i++){
            A[i] = A[(A[i] + 3) % A.length];
        }
        for(int i = 0; i < A.length; i++){
            System.out.print(A[i]);
        }
    }
}
```

- a. 210
- b. 120
- c. 012
- d. 201

Correct Answer: c

Detailed Solution:

The output after execution is 012.

QUESTION 9:

Consider the following piece of code.



```
public class Question{
    public static void main(String[] args){
        String str = "anpctdelqjpava";
        System.out.println(str.substring(1,3)+str.substring(4,5)+
                           str.substring(6,8));
    }
}
```

Which of the following option is the output of the above program?

- a. java
- b. npteljava
- c. nptel java
- d. nptel

Correct Answer: d

Detailed Solution:

The output can be checked by execution.

QUESTION 10:

What is the output of the following program?

```
public class Main{
    public void static main(String args[]){
        char a = '3';
        int b = 011;
        System.out.println(a+b);
    }
}
```

- a. 60
- b. 3011
- c. 33
- d. Compilation error

Correct Answer: d

Detailed Solution:

There is a compilation error due to incorrect syntax in the statement `public void static main(String args[])`; it should be `public static void main(String args[])`
