1. Which of the following is FALSE about arrays on Java

(A) java array is always an object
(B) Length of array can be changed after creation of array
(C) Arrays in Java are always allocated on heap

Answer: (B)

2. Predict the output?

```
// file name: Main.java
public class Main {
    public static void main(String args[]) {
        int arr[] = {10, 20, 30, 40, 50};
        for(int i=0; i < arr.length; i++)
        {
            System.out.print(" " +
arr[i]);
        }
    }
}
```

(A) 10 20 30 40 50

(B) Compiler Error

(C) 10 20 30 40

Answer: (A)

```
3. class Test {
   public static void main(String args[]) {
     int arr[2];
     System.out.println(arr[0]);
     System.out.println(arr[1]);
   }
}
```

(A)0 0

(B) garbage value garbage value

(C) Compiler Error

(D) Exception

Answer: (C)

```
4. class Test {
   public static void main(String args[]) {
     int arr[] = new int[2];
     System.out.println(arr[0]);
     System.out.println(arr[1]);
   }
}
```

(A)0 0

(B) garbage value garbage value

(C) Compiler Error

(D) Exception

Answer: (A)

5. Which of these operators is used to allocate memory to array variable in Java?

a) malloc

b) alloc

c) new

d) new malloc

Answer: C

6. Which of these is an incorrect array declaration?

a) int arr[] = new int[5]

b) int [] arr = new int[5]

c) int arr[] = new int[5]

d) int arr[] = int [5] new

Answer: d

7. What will this code print?

```
int arr[] = new int [5];
System.out.print(arr);
```

a) 0

b) value stored in arr[0].

c) 00000

d) Class name@hashcode in hexadecimal form

Answer: d

9) Which of these is necessary to specify at time of array initialization?

a) Row

b) Column

c) Both Row and Column

d) None of the mentioned

Answer: a

10) What is the output of this program?

```
class array_output
{
    public static void main(String args[])
    {
        int array_variable [] = new int[10];
             for (int i = 0; i < 10; ++i)
        {
            array_variable[i] = i;
            System.out.print(array_variable[i] + " ");
            i++;
        }
    }
}
```

a) 0 2 4 6 8

b) 1 3 5 7 9

c) 0 1 2 3 4 5 6 7 8 9

d) 1 2 3 4 5 6 7 8 9 10

Answer: a

11) What is the output of this program?

```
class multidimention_array {
        public static void main(String args[]) {
            int arr[][] = new int[3][];
            arr[0] = new int[1];
            arr[1] = new int[2];
            arr[2] = new int[3];
               int sum = 0;
               for (int i = 0; i < 3; ++i)
                   for (int j = 0; j < i + 1; ++j)
                    arr[i][j] = j + 1;
               for (int i = 0; i < 3; ++i)
                   for (int j = 0; j < i + 1; ++j)
                    sum + = arr[i][j];
               System.out.print(sum);      } }
```

a) 11

b) 10

c) 13

d) 14

Answer: b

12) What is the output of this program?

```
class evaluate
{
    public static void main(String args[])
        {
            int arr[] = new int[] {0 , 1, 2, 3, 4, 5, 6, 7, 8, 9};
             int n = 6;
           n = arr[arr[n] / 2];
             System.out.println(arr[n] / 2);
        }
}
```

a) 3

b) 0

c) 6

d) 1

Answer: d

13) What is the output of this program?

```
class array_output
{
    public static void main(String args[])
    {
        char array_variable [] = new char[10];
            for (int i = 0; i < 10; ++i)
        {
            array_variable[i] = 'i';
            System.out.print(array_variable[i] + "");
        }
    }
}
```

a) 1 2 3 4 5 6 7 8 9 10

b) 0 1 2 3 4 5 6 7 8 9 10

c) i j k l m n o p q r

d) i i i i i i i i i i

Answer: d

14) What is the output of this program?

```
class array_output
{
    public static void main(String args[])
    {
        int array_variable[][] = {{ 1, 2, 3}, { 4 , 5, 6}, { 7, 8, 9}};
        int sum = 0;
        for (int i = 0; i < 3; ++i)
            for (int j = 0; j <  3 ; ++j)
                sum = sum + array_variable[i][j];
        System.out.print(sum / 5);
    }
}
```

a) 8

b) 9

c) 10

d) 11

Answer: b

15) Below is an example of -

int RollNum[30][4];

A)3-D Array

B)4-D Array

C)1-D Array

D)2-D Array

Answer D

Find output

```
int a[]=new int[-4];
System.out.println("java");
```

1) Java
2) No output
3) Compile time error
4) Runtime error

Ans) 4

java.lang.NegativeArraySizeException

```
int a[][] = new int[3][2];
a[0] = new int[5];
a[1] = new int[4];

System.out.println("length="+(a[0].length+a[1]
.length+a[2].length));
```

Output: length=11

int a = 010, b=0x10;

System.***out.println("value="+a+"\n value="+b);***

Output:

value=8

value=16

Find output:

```
int a[]= new int[0];
System.out.println(a.length);
```

Output:

0

Find output:

```
int arr[] = new int [5];
System.out.println(arr);

float arr1[][] = new float[5][4];
System.out.println(arr1);
```

Output:

[I@2712ee9

[[F@38462f90

Find output:

int a[] = {5,1,9};

int b[] = {5,1,9};

System.***out.println(a==b);***

Output:

false

Find output:

```
int a[] = new int[]{5,1,9};
int b[] = new int[]{5,1,9};
if(a==b)
        System.out.println("same");
else
        System.out.println("not same");
```

Output:

not same

Find output:

```
int a[] = new int[3];
a[1] = 11;
a = new int[5];
System.out.println(a[1]);
```

Output:

0

Find output:

Which of the following is FALSE about arrays on Java

(A) A java array is always an object

(B) Length of array can be changed after creation of array

(C) Arrays in Java are always allocated on heap

d) We can create an array of float values

Output:

B

Find output:

```
int arr1[] = {1, 2, 3};
int arr2[] = {1, 2, 3};
if (Arrays.equals(arr1, arr2))
        System.out.println("Same");
else
        System.out.println("Not same");
```

Output:

Same

Find output:

```
int arr1[] = {1, 2, 3};
int arr2[] = {1, 2, 3};
if (arr1.equals(arr2))
        System.out.println("Same");
else
        System.out.println("Not same");
```

Output:

Not same

Find output:

Which of the following declarations will cause a compile time error?

A. int[] scores = null;

B. int[] scoreArray = {50,90,85};

C. String[] nameArray = new String[10];

D. String[] nameArray = {5, 3, 2};

Output:

D

Find output:

What is returned from arr[3] if arr={6, 3, 1, 2}?

A. 1

B. 2

C. 3

D. 6

Output:

B

Find output:

What is returned from mystery when it is passed {10, 30, 30, 60}?

```
public static double mystery(int[] arr)
{
   double output = 0;
   for (int i = 0; i < arr.length; i++)
   {
      output = output + arr[i];
   }
   return output / arr.length;
}
```

Output:

32.5

Find output:

Given the following values of a and the method doubleLast what will the values of a be after you execute: doubleLast()?

```
private int[ ] a = {-10, -5, 1, 4, 8, 30};
public void doubleLast()
{

   for (int i = a.length / 2; i < a.length; i++)
   {
      a[i] = a[i] * 2;
   }
}
```

Output:

{-10, -5, 1, 8, 16, 60}

Find output:
What are the values in a after multAll(3) executes?

```
private int[ ] a = {1, 3, -5, -2};
public void multAll(int amt)
{
   int i = 0;
   while (i < a.length)
   {
      a[i] = a[i] * amt;
      i++;
   } // end while
} // end method
```

Output:

{3, 9, -15, -6}

Find output:
What are the values in a after mult(2) executes?

```
private int[ ] a = {1, 3, -5, -2};

public void mult(int amt)
{
   int i = 0;
   while (i < a.length)
   {
      a[i] = a[i] * amt;
   } // end while
} // end method
```

Output:

The code will never stop executing due to an infinite loop

Find output:

Which index is the last element in an array called nums at?

output:

nums.length - 1

Find Output:

```
int arr[] = new int[5];
int arr2[] = new int['a'];
byte bt = 10;
int arr3[] = new int[bt];
System.out.print(arr.length+”  “);
System.out.print(arr2.length+”  “);
System.out.print(arr3.length);
```

Output:

A) Error
B) Runtime Exception
C) 5 97 10
D) 5 65 10

Ans: C

Explanation : To specify array size allowed data type are – byte, short, int, char and all of these are valid data types here.

Find output:

```
int a[] = new int[5];
int[] a11 = new int[];
```

Output:

Option

A) Compilation Error
B) Exception
C) Run successfully
D) None

Ans: A

- **Explanation :** One Dimension array have size declaration as compulsory feature.
- Error : array dimension missing int []a11 = new int[]; // line 2

Find output:

```
int[][] arr1 = new int[2][3]; // Line 1
int[][] arr2 = new int[2][]; // line 2
int[][] arr3 = new int[][]; // line 3
int[][] arr4 = new int[][2]; // line 4
```

Output:

Option

A) All
B) line 1, 3, 4
C) line 3, 4
D) line 2, 3, 4

Ans: C

Explanation : First two declarations are allowed and so no error. line 3 and 4 have zero and last dimension respectively.

Find output:

```
int[][][] arr1 = new int[1][2][3]; // Line 1
int[][][] arr2 = new int[1][2][]; // Line 2
int[][][] arr3 = new int[2][][]; // Line 3
int[][][] arr4 = new int[][][]; // Line 4
int[][][] arr5 = new int[][2][3]; // Line 5
int[][][] arr6 = new int[][][3]; // Line 6
int[][][] arr7 = new int[][2][]; // Line 7
```

- **Option**
  A) line 4, 5, 6, 7
  B) All
  C) No Error
  D) line 4, 7
- Output: A

Explanation : In three dimensional array have first two dimension declaration is compulsory other wise we will get compile time error:illegal startup expression.

Find output:

```
int arr[] = new int[5];
System.out.print(arr+”  “);
System.out.print(arr[0]);
```

- **Option**
  A) 0 0
  B)[I@6bc7c054 0
  C) 0 0 0 0 0 0
  D) none
- Output: B

Find output:

```
int arr[] = { 11, 22, 33 };
for (int i = 0; i < arr.length; i++)
        System.out.print(arr[i] + " ");
System.out.println();

int arr2[] = new int[3];
arr2[] = { 11, 22, 33 };
for (int i = 0; i < arr2.length; i++)
        System.out.print(arr2[i] + " ");
```

Option

A) 11 22 33
11 22 33

B) Error

C) Exception

D) None

Ans: B

Explanation : It’s not a valid Syntax for array declarations. It will give compile time error : not a statement arr2[] = {11, 22, 33}

Find output:

String str[] = { "Raju", "John", "Bob" };

for (int i = 0; i < str.length; i++)

System.***out.print(str[i]);***

Option:

A) RajuJohnBob

B) Error

C) Raju

D) RJB

Ans: A

Explanation : It is a simple one dimension string type array.

Find output:

String str[] = { "Raju", "John", "Bob" };

System.***out.print(str.length+” “);***

System.***out.println(str[0].length);***

- **Option**
  A)Error
  B)3 5
  C)3 13
  D)None
- Output: A
- **Explanation :** length is applied only to find the size of array. If we are try get the size of string object, then we will get compile time error : cannot find symbol.

Find output:

```
int number = 11;
int NUMBER = 22;
int Number = 33;
System.out.print(number + " ");
System.out.print(NUMBER + " ");
System.out.println(Number);
```

- **Option**
  A)11 22 33
  B)11 11 11
  C)33 33 33
  D)error
- Output: A
- **Explanation :** Java is case sensitive. Therefore, here three different int type variable are there

Find output:

String str[] = { "Raju", "John", "Bob" };

System.***out.print(str[0] + str[1] + str[2]);***

- **Option**
  A) RajuJohnBob
  B) RJB
  C)Error
  D)none
- Output : A
- **Explanation :** In Java + operator can concatenate the string.

Find output:

```
int arr[] = { 11, 22, 33 };
System.out.print(arr[-2]);
```

Option

A) 11 33

B) Error

C) exception

D) 11 -33

Output: C

Explanation : We will get java.lang.ArrayIndexOutOfBoundsException because [-2] index is out of range.

Find output:

```
int arr[][] = { { 11, 22 }, { 33, 44, 55 } };
for (int i = 0; i < 2; i++) {
        for (int j = 0; j < arr.length; j++)
                System.out.print(arr[i][j] + " ");
        System.out.println();
}
```

- **Option**
  A) 11 22
  33 44 55
  B) 11 22
  33 44
  C) Error
  D) Exception
- Output: B
- **Explanation :** Here arr.length returns 2 of the array size, because first dimension size if 2.

Find output:

```
int arr[][] = { { 11, 22 }, { 33, 44, 55 } };
for (int i = 0; i < 2; i++) {
        for (int j = 0; j < arr[i].length; j++)
                System.out.print(arr[i][j] + " ");
        System.out.println();
}
```

- **Option**
  A) 11 22
  33 44 55
  B) 11 22
  33 44
  C) Exception
  D) Error
- Output: A
- **Explanation :** Here arr[i].length returns first time 2 because first dimension size is 2 and second time 3 because 3 second dimension array size is 3.

Find output:

```
int arr[][] = { { 11, 22 }, { 33, 44, 55 } };
for (int i = 0; i < 2; i++) {
        for (int j = 0; j < 3; j++)
                System.out.print(arr[i][j] + " ");
        System.out.println();
}
```

- **Option**
  A) 11 22
  33 44 55
  B) 11 22
  33 44
  C) Error
  D) Exception
- Output: D
- **Explanation :** This program will give exception :java.lang.ArrayIndexOutOfBoundsException because we want to print the value out of range of array.

Find output:

```
int arr1[] = new int[0];
int arr2[] = new int[-1];
System.out.print(arr1.length + " : " +
arr2.length);
```

- **Option**
  A) 0 : 0
  B) 0 : -1
  C) Compiler Error
  D) Run time Exception
- Output: D
- **Explanation :** In java, if we are trying to specify Array size with some negative int value then we will get run time exception – NegativeArraySizeException.

Find output:

```
int arr1[] = new int[2147483647];
int arr2[] = new int[2147483648];

System.out.println(arr1.length);
System.out.println(arr2.length);
```

- **Option**
  A) 2147483647
  2147483648
  B) Error
  C) 2147483647
  -1
  D) 2147483647
  2147483646
- Output: B
- **Explanation :**In java, maximum allowed array size is 2147483647 which is the maximum value of int.if you will give more than this range then we will get compile time error – integer number too large.

Find output:

```
short s = 45;
int arr1[] = new int[s];

char ch = 'A';
int arr2[] = new int[ch];

long l = 10;
int arr3[] = new int[l];

System.out.println(arr1.length);
System.out.println(arr2.length);
System.out.println(arr3.length);
```

- **Option**
  A)45
  65
  10
  B) 45
  A
  10
  C) Error
  D) no output
- Output: C
- **Explanation :** In java, we can specify the array size with char, sort, int, byte but we can not with long, double, string and float size. Otherwise we will get compile time error – incompatible types: possible lossy conversion.

Find output:

output: