B Dashboard / Java / Arrays and Strings / Test Your Understanding - Arrays and Strings

```
Started on Sunday, 1 March 2020, 11:27 PM

State Finished

Completed on Sunday, 1 March 2020, 11:45 PM

Time taken 17 mins 54 secs

Marks 20.33/21.00

Grade 96.83 out of 100.00

Feedback Congratulations!!! You have passed by securing more than 80%
```

#### Question **1**

Correct
Mark 1.00
out of 1.00

Flag

question

```
Determine the output:
public class A
{

public static void main(String argv[])
{

int ary[]=new int[]{1,2,3};

System.out.println(ary[1]);
}
}

Select one:

a. 2 

b. Compilation Error:incorrect syntax

c. 1
```

The array ary is initialized with 3 elements and the element at the first index is 2.

The correct answer is: 2

## Question **2**

Correct Mark 1.00 out of 1.00

▼ Flag

```
Determine the output:
class Evaluate
{
    public static void main(String args[])
    {
```

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```
question
```

```
Int arry = new inty {0 , 1, 2, 3, 4, 5, 6, 7, 8, 9};

int n = 6;

n = arr{arr[n] / 2};

System.out.println(arr[n] / 2);
}

Select one:

a. 6

b. 1 

c. 3

d. 0
```

arr is an integer array that is initialized with 10 values.

When n is initialized with value 6, n = arr[arr[n] / 2] evaluates to n = 3. Now, printing arr[n] / 2 will output 1.

The correct answer is: 1

#### Question 3

Correct

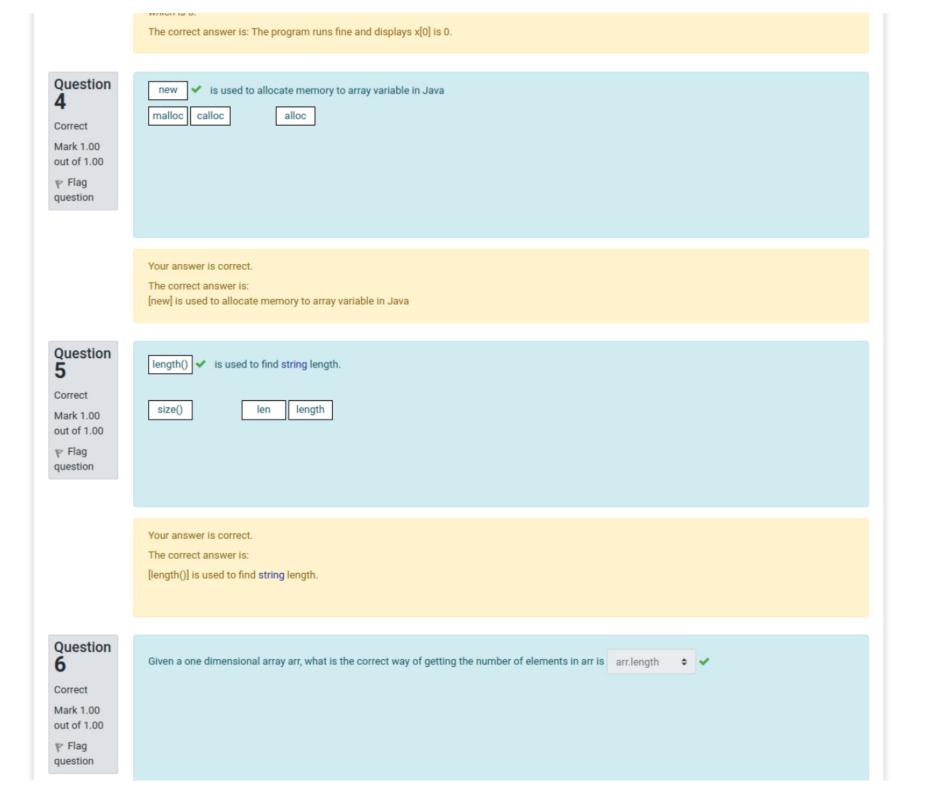
Mark 1.00 out of 1.00

Flag question

```
Determine the output: (MCQ)
public class Test
{
    public static void main(String[] args)
        {
        int[] x = new int[3];
        System.out.println("x[0] is " + x[0]);
    }
}

Select one:
    a. The program has a runtime error because the array elements are not initialized.
    b. The program has a compile error because the size of the array wasn't specified when declaring the array.
    c. The program runs fine and displays x[0] is 0. ✓
    d. The program has a runtime error because the array element x[0] is not defined.
```

The "new" keyword allows memory for storing integer elements in an array to be created in the "heap" and the memory is initialized with "default of integer" which is 0



Your answer is correct.

The correct answer is:

Given a one dimensional array arr, what is the correct way of getting the number of elements in arr is [arr.length]

#### Question **7**

Partially correct

Mark 0.67 out of 1.00

Flag question

What is special about string objects as compared to objects of other derived types?

Select one or more:

- a. Java provides string constant pool to store the string objects
- Ø c. You can concatenate two string objects using '+'

  ✓

Your answer is partially correct.

You have correctly selected 2.

The correct answers are: You can concatenate two string objects using '+', You can create string objects without or without using new operator, Java provides string constant pool to store the string objects

#### Question 8

Correct

Mark 1.00 out of 1.00

Flag question

Select one:

a. 0 0

b. 0 0 0 0

c. 1 2 3 4

d. 1 2 

d. 1 2 

elect one:

Array x is initialized with 4 values and this means reference "x" contains the starting address of the array. This address is copied to the array reference "y". This mean the 4 values can now be accessed with "y" as well. Then the reference x is assigned with a new array's starting address whose length is 2. Hence the iteration outputs 1 2

The correct answer is: 1 2

#### Question **Q**

Partially correct

Mark 0.67 out of 1.00

Flag question

```
Fill in appropriately.

String st1 = new String("JAVA");

String st2 = new String("JAVA");

String st3="JAVA"

3 ♦ ✓ objects, 3 ♦ ✗ in heap memory and 1 ♦ ✓ in string pool
```

```
The "new" keyword allows memory for storing String to be allocated in the "heap" . Otherwise, memory is allocated in string pool.

You have correctly selected 2.

The correct answer is:

Fill in appropriately.

String st1 = new String("JAVA");

String st2 = new String("JAVA");

String st3="JAVA"

[3] objects, [2] in heap memory and [1] in string pool
```

#### Question 10

Correct

Mark 1.00

 $\mbox{+}$  operator can be used to concatenate two or more String objects in java. State true or false.

Select one:

True

```
Flag question
```

False

The correct answer is 'True'.

### Question 11

Correct

Mark 1.00 out of 1.00

Flag question

```
Determine the output
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] + "");
Select one:
a.ijklmnopqr
c.012345678910
d. 1 2 3 4 5 6 7 8 9 10
```

array\_variable is a character array that can hold 10 characters. The for loop gets iterated for 10 times. During each iteration, the array index is assigned with the character "i" and printed alongside. Hence the output "iiiiiiiiiii".

#### Question 12

Correct

Mark 1.00 out of 1.00

```
Predict the output

class String_demo

{
    public static void main(String args[])
    {
```

```
F Flag
question
```

```
int ascii[] = { 65, 66, 67, 68};

String s = new String(ascii, 1, 3);

System.out.println(s);
}

Select one:

a. ABCD

b. CDA

c. BCD

d. ABC
```

An integer array is initialized with values 65, 66, 67 and 68. Its reference is "ascii". A new **string** object is initialized with this reference such that the elements from index 1 through 3 alone gets copied as "characters". This object is referred by "s". Printing this object will output BCD which are the char-equivalents of 66, 67 and 68.

The correct answer is: BCD

### Question 13

Correct
Mark 1.00
out of 1.00

Flag

question

int arr[4] is syntactically wrong

### Question 14

Correct

Mark 1.00 out of 1.00

Flag question

```
What will s2 contain after following lines of code?

String s1 = "one";

String s2 = s1.concat("two");

Select one:

a. one

b. onetwo 

c. twoone

d. two
```

The string "two" referred by s2 is "concatenated to" the string "one" referred by s1.

The correct answer is: onetwo

### Question 15

Correct

Mark 1.00 out of 1.00

F Flag question

```
class Output
{

public static void main(String args[])
{

int a1[] = new int[10];

int a2[] = {1, 2, 3, 4, 5};

System.out.println(a1.length + " " + a2.length);
}

Select one:

a. 10 5 

b. 5 10

c. 0 5

d. 0 10
```

Array a1 is created so as to contain 10 integer elements. Hence, the length is 10.

Array a2 is initialized with 5 values. . Hence, the length is 5.

The correct answer is: 10 5

#### Question 16

Correct

Mark 1.00 out of 1.00

Flag question

#### Given:

- 1. public class MyLogger {
- 2. private StringBuilder logger = new StringBuuilder();
- 3. public void log(String message, String user) {
- 4. logger.append(message);
- logger.append(user);
- 6. }
- 7. }

The programmer must guarantee that a single MyLogger object works properly for a multi-threaded system.

How must this code be changed to be thread-safe?

#### Select one:

- a. Replace StringBuilder with just a String object and use the string concatenation (+=) within the log method.
- b. No change is necessary, the current MyLogger code is already thread-safe.
- c. Replace StringBuilder with StringBuffer
- d. Synchronize the log method

StringBuffer is synchronized and therefore thread-safe. StringBuilder is compatible with StringBuffer API but with no guarantee of synchronization. Because it's not a thread-safe implementation, it is faster and it is recommended to be used only in places where there's no need for thread safety.

The correct answer is: Replace StringBuilder with StringBuffer

## Question **17**

Correct Mark 1.00

out of 1.00

Flag question

```
Predict the output

class String_demo

{
    public static void main(String args[])
    {
        char chars[] = {'a', 'b', 'c'};
        String s = new String(chars);
        System.out.println(s);
    }
}

Select one:
```

```
    a. abc ✓
    b. a
    c. c
    d. b
```

A character array is initialized with 'a', 'b' and 'c' and the array reference is chars. Printing this reference will output abc.

A "new" string object is initialized with this reference and this object is referred by "s". Printing this reference will output abc.

The correct answer is: abc

## Question 18

Correct

Mark 1.00 out of 1.00

Flag question

```
What will be the content of array variable table after executing the following code?
public class Trial
         public static void main(String[] args)
         int []table[]=new int[5][5];
         for(int i = 0; i < 3; i++)
                   for(int j = 0; j < 3; j++)
                            if(j == i)
                                      table[i][j] = 1;
                                      System.out.print(table[i][j]);
                   else
                                      table[i][j] = 0;
                                      System.out.print(table[i][j]);
         System.out.println("\n");
```

Select one: a. 000 000 000 b. 100 010 001 🗸 O C. 100 110 111 d. Compilation error "table" is a 2 dimensional array with 5 rows and 5 columns. It is iterated from 0 through 3 and during each iteration j==i (iteration variables) is

checked. When j==i evaluates to true, the index is assigned the value "1" and printed. Else, assigned "0" and printed.

The correct answer is:

100

010

001

# Question 19

Correct

Mark 1.00 out of 1.00

▼ Flag question Column size is mandatory to create an array in java. State true or false

Select one:

True

False

The correct answer is 'False'.

## Question 20

Correct Mark 1.00

ello ✓ is the string contained in s after following lines of code?

StringBuffer s new StringBuffer("Hello");

s.deleteCharAt(0);

