

Chapter 4 – Arrays & Strings

Question 1:

Which of the following signatures are valid for the main() method of an application ?

- A) public static void main(String vec[])
- B) public static void main(String array[])
- C) public void static main(String vec[])
- D) public void static main(String array[])
- E) static void main(String args[])

Question 2:

Which of the following signatures are valid for the main() method of an application ?

- A) public static void main(String []args)
- B) public static void main(String args[])
- C) public static void main()
- D) public static void main(Strings args[][])
- E) void public static main(String args[])

Question 3:

Which of the following signatures are valid for the main() method of an application ?

- A) public void static main(String vec[])
- B) public static void main(String args[])
- C) public void static main(String [] vec)
- D) private void static main(String array[])
- E) static public void main(String args[])

Question 4:

Which of the following signatures are valid for the main() method of an application ?

- A) public static void main(String [])
- B) public static void main(String []args)
- C) public void static main(String vec[])
- D) public void static main()
- E) public static void mainMethod(String args[])

Question 5:

Consider the following line of code:

```
int vec[] = new int[10];
```

After this line is executed, which statement or statements are true ?

- A) vec[10] is 0
- B) vec[9] is 0
- C) vec[0] is 0
- D) vec.length is 10
- E) vec[1] is null

Question 6:

Regarding the following fragment of code, what is the output ?

1. int index = 2;
2. String [] vec = {"Avy", "David", "Ruty", "Simon", "Baruch", "Yoel", "Ronit", "Tal", "Tomer"};
3. vec[--index]+="#";
4. for (int counter=index; counter < vec.length; counter++)
5. {
6. System.out.println(vec[counter]);
7. }

- A) The output includes "David# "
- B) The output includes "Ruty#"
- C) The output includes "David#" and "Ruty#"
- D) The output includes "Avy#"
- E) The output includes "Avy#" and "David#"

Question 7:

Regarding the following fragment of code,

```
1. int index = 2;
2. String [] vec = {"A", "B", "C", "D", "E", "F", "G", "H", "I", "J", "K", "L", "M"};
3. vec[++index]+="#";
4. for (int counter=index; counter < vec.length; counter++)
5. {
6.     System.out.println(vec[counter]);
7. }
```

- A) An `ArrayIndexOutOfBoundsException` is thrown
- B) The output includes "A#"
- C) The output includes "B#" and "A#"
- D) The output includes "C#"
- E) The output includes "D#"

Question 8:

True or False:

In order to add capabilities to the String object it is possible to declare a new class that extends the String class.

- A) true
- B) false

Question 9:

Regarding the following fragment of code:

1. String str1 = "abba";
2. String str2 = new String("abba");
3. if (str1==str2)
4. System.out.println("Amsterdam");
5. if (str1.equals(str2))
6. System.out.println("Tel-Aviv");

The output will include:

- A) Amsterdam
- B) Tel-Aviv
- C) The compilation won't succeed
- D) The compilation will succeed but nothing will be printed on the screen

Question 10:

Regarding the following fragment of code:

1. String str1 = "abba";
2. String str2 = "abba";
3. if (str1==str2)
4. System.out.println("Amsterdam");
5. if (str1.equals(str2))
6. System.out.println("Tel-Aviv");

The output will include:

- A) Amsterdam
- B) Tel-Aviv
- C) The compilation won't succeed
- D) The compilation will succeed but nothing will be printed on the screen

Question 11:

Regarding the following fragment of code:

1. StringBuffer str1 = new StringBuffer("abba");
2. StringBuffer str2 = new StringBuffer("abcd");
3. StringBuffer str3 = str2.append(" Haifa");
4. if (str2==str3)
5. System.out.println("Paris");
6. if (str1==str2)
7. System.out.println("Amsterdam");
8. if (str1.equals(str2))

9. `System.out.println("Tel-Aviv");`

The output will include:

- A) Amsterdam
- B) Tel-Aviv
- C) The compilation won't succeed
- D) The compilation will succeed but nothing will be printed on the screen
- E) Paris

Question 12:

Regarding the following fragment of code:

1. `String str1 = "abba";`
2. `StringBuffer str2 = new StringBuffer("abba");`
3. `StringBuffer str3 = str2.append(" Haifa");`
4. `if (str2==str3)`
5. `System.out.println("Paris");`
6. `if (str1==str2)`
7. `System.out.println("Amsterdam");`
8. `if (str1.equals(str2))`
9. `System.out.println("Tel-Aviv");`

The output will include:

- A) Amsterdam
- B) Tel-Aviv
- C) The compilation won't succeed
- D) The compilation will succeed but nothing will be printed on the screen

Question 13:

True or False:

Regarding the following code the reference that sbf variable holds doesn't change.

1. `StringBuffer sbf = new StringBuffer("trooper");`
2. `StringBuffer temp = sbf.reverse();`

- A) true
- B) false

Question 14:

Given the code below,

1. `class Funky`
2. `{`
3. `int getNumbers(int num)[]`
4. `{`
5. `int vec[] = new int[10];`


```
6.         for(int index=1; index<10; index++)
7.             vec[index] = index*num;
8.         return vec;
9.     }
10. }
```

- A) Line number 3 will cause a compilation error
- B) The code will compile but during its execution an exception will be thrown at line 3.
- C) The code will compile and run successfully.

Question 15:

True or False:

It is possible to specify the size of the created array with a variable rather than a literal.

- A) true
- B) false

Question 16:

Given the code below,

```
1. int [] vec = {10,11,12,13,14,15,16,17,18};
2. int num = 1;
3. vec[num] = num = 0;
```

which of the following sentences (one or more) is true ?

- A) The value of num is 1

- B) The value of vec[0] is 10
- C) The value of vec[1] is 11
- D) The value of num is 0
- E) The value of vec[1] equals to num

Question 17:

Given the code below,

```
1. public class TryIntern
2. {
3.     public static void main(String args[])
4.     {
5.         String str1 = new String("abc");
6.         String str2 = new String("abc");
7.         if (str1==str2)
8.             System.out.print("Hello ");
9.         str1.intern();
10.        str2.intern();
11.        if (str1==str2)
12.            System.out.println("Israel");
13.    }
14. }
```

The output will be :

- A) Hello Israel

- B) Hello
- C) Israel
- D) nothing (nothing will be printed on the screen)
- E) a compilation error will happen at line 9

Question 18:

True or False:

Given the code below,

```
1. public class TryIntern
2. {
3.     public static void main(String args[])
4.     {
5.         String str1 = "abc";
6.         String str2 = new String("abc").intern();
7.         if (str1==str2)
8.             System.out.println("Hello Israel");
9.     }
10. }
```

The output will be : Hello Israel.

- A) True
- B) False

Question 19:

Given the code below,

```
1. public class TryIntern
2. {
3.     public static void main(String args[])
4.     {
5.         String str1 = new String("abc").intern();
6.         String str2 = new String("abc").intern();
7.         if (str1==str2)
8.             System.out.print("Hello ");
9.         str1.intern();
10.        str2.intern();
11.        if (str1==str2)
12.            System.out.println("Israel");
13.    }
14. }
```

The output will be :

- A) Hello Israel
- B) Hello
- C) Israel
- D) nothing (nothing will be printed on the screen)
- E) a compilation error will happen at line 9

Question 20:

True or False:

The trim() method that belongs to the String class returns the string that results from removing the white space characters from the beginning and from the ending of the current string.

- A) True
- B) False

Question 21:

True or False:

Comparing using the equals method an object that belongs to the StringBuffer class to an object that belongs to the String class will always return false.

- A) True
- B) False

Question 22:

Given the code fragment below:

1. String str1 = new String("Shalom");
2. String str2 = str1;
3. String str3 = new String(str1);
4. String str4 = str3;
5. str4 += " Israel";
6. if (str3==str4)
7. System.out.println("one");
8. if (str3.equals(str4))
9. System.out.println("two");
10. if (str1==str2)
11. System.out.println("three");
12. if (str3.equals(str2))
13. System.out.println("four");

Which of the following will be included in the output (one ore more or none of them)?

- A) one
- B) two
- C) three
- D) four
- E) The code won't compile

Question 23:

Given the code below,

```
1.  public class Try
2.  {
3.      public static void main(String args[])
4.      {
5.          Dot vec1[] = {new Dot(2,3), new Dot(4,5), new Dot(12,14)};
6.          Dot vec2[] = new Dot[3];
7.          System.arraycopy(vec1,0,vec2,0,vec1.length);
8.          vec1[0].x = vec1[0].y = 1;
9.          vec2[1].x = vec2[1].y = 1;
10.         System.out.println(vec2[0].x+vec1[1].y);
11.     }
12. }

13. class Dot
14. {
15.     public int x,y;
16.     public Dot(int a, int b)
17.     {
18.         x = a;
19.         y = b;
20.     }
```

21. }

The output will be :

- A) 2
- B) 11
- C) 5
- D) 7
- E) The code will execute successfully but the output isn't any of the above answers

Question 24:

True or False:

When dealing with arrays of objects, the `System.arraycopy()` method will copy references and won't create new objects.

- A) True
- B) False

Question 25:

Given the code below,

```
class Try1
{
    public static void main(String args[])
    {
        String str1 = "abba";
        StringBuffer str2 = new StringBuffer("abba");
        StringBuffer str3 = str2.append(" Haifa");
        if (str2==str3)
            System.out.println("Paris");
        if (str1.equals(str2))
            System.out.println("Tel-Aviv");
    }
}
```

The output will be:

- A) Paris
- B) Tel-Aviv
- C) The code won't compile
- D) Nothing will be printed out on the screen

Question 26:

Given the code below,

```
public class Try
{
    public static void main(String args[])
    {
        Dot vec1[] = {new Dot(1,1), new Dot(2,2), new Dot(3,3)};
        Dot vec2[] = new Dot[3];
        System.arraycopy(vec1,0, vec2,0, vec1.length);
        vec1[0].x = vec1[0].y = 2;
        vec2[1].x = vec2[1].y = 2;
        System.out.println(vec2[0].x+vec1[1].y);
    }
}

class Dot
{
    public int x,y;
    public Dot(int a, int b)
    {
        x = a;
        y = b;
    }
}
```

```
}
```

The output will be :

- A) 2
- B) 11
- C) 5
- D) 7
- E) The code will execute successfully but the output isn't any of the above answers

Question 27:

Given the code below,

```
int [] vec = {10,11,12};
```

```
int num = 1;
```

```
vec[1] = 1;
```

```
vec[num] = num = 0;
```

which of the following sentences (one or more) is true ?

- A) The value of num is 1
- B) The value of vec[0] is 10
- C) The value of vec[1] is 11

- D) The value of num is 0
- E) The value of vec[1] equals to num

Question 28:

True or False:

It is possible to change the string which a String object represents.

- A) True
- B) False

Question 29:

True or False:

Consider the following line of code:

```
int vec[] = new int[10];
```

After this line is executed, vec.length is 9.

- A) True
- B) False

Question 30:

Given the following code:

```
.  
.br/>int vec[]={1, 2, 3, 4};  
int sum = 10;  
for(int index=0; index<vec.length; index++)  
{  
    sum += vec[index];  
}  
sum -= 10;  
System.out.println(sum);  
.br/.
```

the output will be:

- A) 10
- B) 11
- C) 12
- D) 6
- E) 20

Question 31:

Given the following code:

```
.  
.br/>int vec[] = {1,2,3,4};  
System.out.println(vec.length);  
.br/>.
```

the output will be:

- A) 3
- B) 4
- C) 5
- D) 6
- E) 7

Question 32:

Given the following code:

.

.

```
String str = "abcd";
```

```
System.out.println(str.length);
```

.

.

- A) The code doesn't compile
- B) The output is: 4.
- C) The output is: 5.
- D) The output is: 3.

Question 33:

Given the following code:

.

.

```
String [] vec, tavs;
```

```
vec = new String[4];
```

```
tavs = new String[4];
```

```
vec[0] = "abc";
```

```
vec[1] = "def";
```

```
vec[2] = "ghi";  
vec[3] = "jkl";  
tavs[0] = "a";  
tavs[1] = "b";  
tavs[2] = "c";  
tavs[3] = "d";  
vec = tavs;  
System.out.println(vec[1]+vec[2]+vec[3]);
```

.

.

the output is:

- A) abcdefghi
- B) abc def ghi
- C) defghijkl
- D) def ghi jkl
- E) bcd
- F) abc
- G) a b c
- H) b c d

Question 34:

Given the following code:

```
.  
.br/>boolean vec[] = {false,false,boolean,0,1};  
System.out.println(vec.length);
```

```
.  
.
```

the output will be:

- A) 5
- B) 4
- C) 3
- D) null
- E) This code doesn't compile

Question 35:

Given the following code:

```
.  
.br/>int vec[5] = {1,2,3,4};  
System.out.println(vec.length);  
.br/>.
```

the output will be:

- A) 3
- B) 4
- C) 5
- D) 6
- E) This code doesn't compile

Question 36:

Regarding the following fragment of code:

1. String str1 = "abba";
2. String str2 = "abba";
3. str1 = str2.toUpperCase();

```
4. if (str1==str2)
5. {
6.     System.out.println("Amsterdam");
7. }

8. if (str1.equals(str2))
9.     System.out.println("Tel-Aviv");
```

The output will include:

- A) Amsterdam
- B) Tel-Aviv
- C) The compilation won't succeed
- D) The compilation will succeed but nothing will be printed out

Question 37:

Regarding the following fragment of code:

```
1. String str[3];
2. str[0] = "abba";
3. str[1] = "vcd";
4. str[2] = "edg";
5. System.out.println(str[0]+str[1]);
```

The output will include:

- A) abbavcd

- B) vcdedg
- C) The code doesn't compile
- D) The compilation succeeds but nothing will be printed out

Question 38:

Regarding the following fragment of code:

1. String str1 = new String("abba");
2. String str2 = new String("abba");
3. if (str1==str2)
4. System.out.println("Amsterdam");
5. if (str1.equals(str2))
6. System.out.println("Tel-Aviv");

The output will include:

- A) Amsterdam
- B) Tel-Aviv
- C) The compilation doesn't succeed
- D) The compilation succeeds but nothing is printed out