

# INTRODUCTION TO JAVA MCQ

## Java Questions & Answers – Literals & Variables

This section of our 1000+ Java MCQs focuses on literals & variables of Java Programming Language.

1. Which of these is long data type literal?

- a) 0x99ffL
- b) ABCDEFG
- c) 0x99ffa
- d) 99671246

**Answer: a**

Explanation: Data type long literals are appended by an upper or lowercase L. 0x99ffL is hexadecimal long literal.

2. Which of these can be returned by the operator & ?

- a) Integer
- b) Boolean
- c) Character
- d) Integer or Boolean

View Answer

Answer: d

Explanation: We can use binary ampersand operator on integers/chars (and it returns an integer) or on booleans (and it returns a boolean).

3. Literals in java must be appended by which of these?

- a) L
- b) l
- c) D
- d) L and I

View Answer

Answer: d

Explanation: Data type long literals are appended by an upper or lowercase L.

4. Literal can be of which of these data types?

- a) integer
- b) float
- c) boolean
- d) all of the mentioned

View Answer

Answer: d

Explanation: None

5. Which of these cannot be used for a variable name in Java?

- a) identifier
- b) keyword
- c) identifier & keyword
- d) none of the mentioned

View Answer

Answer: b

Explanation: Keywords are specially reserved words which cannot be used for naming a user defined variable, example : class, int, for etc.

6. What is the output of this program?

```

1.      class evaluate
2.      {
3.          public static void main(String args[])
4.          {
5.              int a[] = {1,2,3,4,5};
6.              int d[] = a;
7.              int sum = 0;
8.              for (int j = 0; j < 3; ++j)
9.                  sum += (a[j] * d[j + 1]) + (a[j + 1] * d[j]);
10.             System.out.println(sum);
11.         }
12.     }
```

- a) 38
- b) 39
- c) 40
- d) 41

View Answer

Answer: c

Explanation: None

output:

```
$ javac evaluate.java
$ java evaluate
40
```

7. What is the output of this program?

```
1. class array_output
2. {
3.     public static void main(String args[])
4.     {
5.         int array_variable [] = new int[10];
6.         for (int i = 0; i < 10; ++i) {
7.             array_variable[i] = i/2;
8.             array_variable[i]++;
9.             System.out.print(array_variable[i] + " ");
10.            i++;
11.        }
12.
13.    }
14. }
```

- a) 0 2 4 6 8
- b) 1 2 3 4 5
- c) 0 1 2 3 4 5 6 7 8 9
- d) 1 2 3 4 5 6 7 8 9 10

View Answer

Answer: b

Explanation: When an array is declared using new operator then all of its elements are initialized to 0 automatically. for loop body is executed 5 times as whenever controls comes in the loop i value is incremented twice, first by i++ in body of loop then by ++i in increment condition of for loop.

output:

advertisement

```
$ javac array_output.java
$ java array_output
1 2 3 4 5
```

8. What is the output of this program?

```
1. class variable_scope
2. {
3.     public static void main(String args[])
4.     {
5.         int x;
6.         x = 5;
7.         {
8.             int y = 6;
9.             System.out.print(x + " " + y);
10.        }
11.        System.out.println(x + " " + y);
12.    }
13. }
```

- a) 5 6 5 6
- b) 5 6 5
- c) Runtime error
- d) Compilation error

View Answer

Answer: d

Explanation: Second print statement doesn't have access to y , scope y was limited to the block defined after initialization of x.

output:

```
$ javac variable_scope.java
Exception in thread "main" java.lang.Error: Unresolved compilation problem: y cannot be resolved to
a variable
```

9. Which of these is incorrect string literal?

- a) "Hello World"
- b) "Hello\nWorld"
- c) "\"Hello World\""
- d) "Hello

world”

[View Answer](#)

Answer: d

Explanation: all string literals must begin and end in same line.

10. What is the output of this program?

```
1.      class dynamic_initialization
2.      {
3.          public static void main(String args[])
4.          {
5.              double a, b;
6.              a = 3.0;
7.              b = 4.0;
8.              double c = Math.sqrt(a * a + b * b);
9.              System.out.println(c);
10.         }
11.     }
```

- a) 5.0
- b) 25.0
- c) 7.0
- d) Compilation Error

[View Answer](#)

Answer: a

Explanation: Variable c has been dynamically initialized to square root of  $a^2 + b^2$ , during run time.

output:

```
$ javac dynamic_initialization.java
$ java dynamic_initialization
5.0
```

### Java Questions & Answers – Integer and Floating Data Types

This Section of our 1000+ Java MCQs focuses on Integer and Floating Datatypes of Java Programming Language.

1. What is the range of short data type in Java?

- a) -128 to 127
- b) -32768 to 32767
- c) -2147483648 to 2147483647
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: Short occupies 16 bits in memory. Its range is from -32768 to 32767.

2. What is the range of byte data type in Java?

- a) -128 to 127
- b) -32768 to 32767
- c) -2147483648 to 2147483647
- d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: Byte occupies 8 bits in memory. Its range is from -128 to 127.

3. Which of the following are legal lines of Java code?

1. `int w = (int)888.8;`
2. `byte x = (byte)100L;`
3. `long y = (byte)100;`
4. `byte z = (byte)100L;`

- a) 1 and 2
- b) 2 and 3
- c) 3 and 4
- d) All statements are correct.

[View Answer](#)

Answer: d

Explanation: Statements (1), (2), (3), and (4) are correct. (1) is correct because when a floating-point number (a double in this case) is cast to an int, it simply loses the digits after the decimal. (2) and (4) are correct because a long can be cast into a byte. If the long is over 127, it loses its most significant (leftmost) bits. (3) actually works, even though a cast is not necessary, because a long can store a byte.

4. An expression involving byte, int, and literal numbers is promoted to which of these?

- a) int
- b) long
- c) byte
- d) float

[View Answer](#)

Answer: a

Explanation: An expression involving bytes, ints, shorts, literal numbers, the entire expression is promoted to int before any calculation is done.

5. Which of these literals can be contained in float data type variable?

- a) -1.7e+308
- b) -3.4e+038
- c) +1.7e+308
- d) -3.4e+050

View Answer

Answer: b

Explanation: Range of float data type is -(3.4e38) To +(3.4e38)

6. Which data type value is returned by all transcendental math functions?

- a) int
- b) float
- c) double
- d) long

View Answer

Answer: c

Explanation: None.

7. What is the output of this program?

```

1.     class average {
2.         public static void main(String args[])
3.         {
4.             double num[] = {5.5, 10.1, 11, 12.8, 56.9, 2.5};
5.             double result;
6.             result = 0;
7.             for (int i = 0; i < 6; ++i)
8.                 result = result + num[i];
9.             System.out.print(result/6);
10.
11.         }
12.     }

```

- a) 16.34
- b) 16.566666644
- c) 16.466666666666667
- d) 16.466666666666666

View Answer

Answer: c

Explanation: None.

output:

```

$ javac average.java
$ java average
16.466666666666667

```

8. What will be the output of these statement?

advertisement

```

1. class output {
2.     public static void main(String args[])
3.     {
4.         double a, b,c;
5.         a = 3.0/0;
6.         b = 0/4.0;
7.         c=0/0.0;
8.
9.         System.out.println(a);
10.        System.out.println(b);
11.        System.out.println(c);
12.    }
13. }

```

- a) Infinity
- b) 0.0
- c) NaN
- d) all of the mentioned

View Answer

Answer: d

Explanation: For floating point literals, we have constant value to represent (10/0.0) infinity either positive or negative and also have NaN (not a number for undefined like 0/0.0), but for the integral type, we don't have any constant that's why we get an arithmetic exception.

9. What is the output of this program?

```

1.      class increment {
2.          public static void main(String args[])
3.          {
4.              int g = 3;
5.              System.out.print(++g * 8);
6.          }
7.      }

```

- a) 25
- b) 24
- c) 32
- d) 33

View Answer

Answer: c

Explanation: Operator ++ has more preference than \*, thus g becomes 4 and when multiplied by 8 gives 32.

output:

```

$ javac increment.java
$ java increment
32

```

10. What is the output of this program?

```

1.      class area {
2.          public static void main(String args[])
3.          {
4.              double r, pi, a;
5.              r = 9.8;
6.              pi = 3.14;
7.              a = pi * r * r;
8.              System.out.println(a);
9.          }
10.     }

```

- a) 301.5656
- b) 301
- c) 301.56
- d) 301.56560000

View Answer

Answer: a

Explanation: None.

output:

```

$ javac area.java
$ java area
301.5656

```

### Java Questions & Answers – Character and Boolean Data Types

This Section of our 1000+ Java MCQs focuses on Character and Boolean Datatypes of Java Programming Language.

1. What is the numerical range of a char data type in Java?

- a) -128 to 127
- b) 0 to 256
- c) 0 to 32767
- d) 0 to 65535

View Answer

Answer: d

Explanation: Char occupies 16-bit in memory, so it supports  $2^{16}$  i.e from 0 to 65535.

2. Which of these coding types is used for data type characters in Java?

- a) ASCII
- b) ISO-LATIN-1
- c) UNICODE
- d) None of the mentioned

View Answer

Answer: c

Explanation: Unicode defines fully international character set that can represent all the characters found in all human languages. Its range is from 0 to 65536.

3. Which of these values can a boolean variable contain?

- a) True & False
- b) 0 & 1
- c) Any integer value
- d) true

View Answer

Answer: a

Explanation: Boolean variable can contain only one of two possible values, true and false.

4. Which of these occupy first 0 to 127 in Unicode character set used for characters in Java?

- a) ASCII
- b) ISO-LATIN-1
- c) None of the mentioned
- d) ASCII and ISO-LATIN1

View Answer

Answer: d

Explanation: First 0 to 127 character set in Unicode are same as those of ISO-LATIN-1 and ASCII.

5. Which one is a valid declaration of a boolean?

- a) boolean b1 = 1;
- b) boolean b2 = 'false';
- c) boolean b3 = false;
- d) boolean b4 = 'true'

View Answer

Answer: c

Explanation: Boolean can only be assigned true or false literals.

6. What is the output of this program?

```

1.      class array_output {
2.          public static void main(String args[])
3.          {
4.              char array_variable [] = new char[10];
5.              for (int i = 0; i < 10; ++i) {
6.                  array_variable[i] = 'i';
7.                  System.out.print(array_variable[i] + " " );
8.                  i++;
9.              }
10.         }
11.     }

```

- a) i i i i i
- b) 0 1 2 3 4
- c) i j k l m
- d) None of the mentioned

View Answer

Answer: a

Explanation: None.

output:

```

$ javac array_output.java
$ java array_output
i i i i i

```

7. What is the output of this program?

```

1.      class mainclass {
2.          public static void main(String args[])
3.          {
4.              char a = 'A';
5.              a++;
6.              System.out.print((int)a);
7.          }
8.      }

```

- a) 66
- b) 67
- c) 65
- d) 64

View Answer

Answer: a

Explanation: ASCII value of 'A' is 65, on using ++ operator character value increments by one.

output:

```

$ javac mainclass.java
$ java mainclass
66

```

8. What is the output of this program?

```

1.      class mainclass {
2.          public static void main(String args[])
3.          {
4.              boolean var1 = true;

```

```

5.      boolean var2 = false;
6.      if (var1)
7.          System.out.println(var1);
8.      else
9.          System.out.println(var2);
10.     }
11.     }

```

- a) 0
- b) 1
- c) true
- d) false

View Answer

Answer: c

Explanation: None.

output:

```

$ javac mainclass.java
$ java mainclass
true

```

9. What is the output of this program?

advertisement

```

1.      class booloperators {
2.          public static void main(String args[])
3.          {
4.              boolean var1 = true;
5.              boolean var2 = false;
6.              System.out.println((var2 & var2));
7.          }
8.      }

```

- a) 0
- b) 1
- c) true
- d) false

View Answer

Answer: d

Explanation: boolean '&' operator always returns true or false. var1 is defined true and var2 is defined false hence their '&' operator result is false.

output:

```

$ javac booloperators.java
$ java booloperators
false

```

10. What is the output of this program?

```

1.      class asciicodes {
2.          public static void main(String args[])
3.          {
4.              char var1 = 'A';
5.              char var2 = 'a';
6.              System.out.println((int)var1 + " " + (int)var2);
7.          }
8.      }

```

- a) 162
- b) 65 97
- c) 67 95
- d) 66 98

View Answer

Answer: b

Explanation: ASCII code for 'A' is 65 and for 'a' is 97.

output:

```

$ javac asciicodes.java
$ java asciicodes
65 97

```

### Java Questions & Answers – Arrays

This section of our 1000+ Java MCQs focuses on Array Data Structure of Java Programming Language.

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

- a) malloc
- b) alloc
- c) new

d) new malloc

View Answer

Answer: c

Explanation: Operator new allocates block of memory specified by the size of array, and gives the reference of memory allocated to the array variable.

2. 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`

View Answer

Answer: d

Explanation: Operator new must be succeeded by array type and array size.

3. 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

View Answer

Answer: d

Explanation: If we trying to print any reference variable internally, toString() will be called which is implemented to return the String in following form:

classname@hashcode in hexadecimal form

4. Which of these is an incorrect Statement?

- a) It is necessary to use new operator to initialize an array.
- b) Array can be initialized using comma separated expressions surrounded by curly braces.
- c) Array can be initialized when they are declared.
- d) None of the mentioned

View Answer

Answer: a

Explanation: Array can be initialized using both new and comma separated expressions surrounded by curly braces example : `int arr[5] = new int[5];` and `int arr[] = { 0, 1, 2, 3, 4};`

5. 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

View Answer

Answer: a

Explanation: None.

6. What is the output of this program?

```
1. class array_output
2. {
3.     public static void main(String args[])
4.     {
5.         int array_variable [] = new int[10];
6.         for (int i = 0; i < 10; ++i)
7.         {
8.             array_variable[i] = i;
9.             System.out.print(array_variable[i] + " ");
10.            i++;
11.        }
12.    }
13. }
```

- 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

View Answer

Answer: a

Explanation: When an array is declared using new operator then all of its elements are initialized to 0 automatically. for loop body is executed 5 times as whenever controls comes in the loop i value is incremented twice, first by i++ in body of loop then by ++i in increment condition of for loop.

output:



```
$ javac array_output.java
$ java array_output
0 2 4 6 8
```

7. What is the output of this program?

```
1. class multidimension_array
2. {
3.     public static void main(String args[])
4.     {
5.         int arr[][] = new int[3][];
6.         arr[0] = new int[1];
7.         arr[1] = new int[2];
8.         arr[2] = new int[3];
9.         int sum = 0;
10.        for (int i = 0; i < 3; ++i)
11.            for (int j = 0; j < i + 1; ++j)
12.                arr[i][j] = j + 1;
13.        for (int i = 0; i < 3; ++i)
14.            for (int j = 0; j < i + 1; ++j)
15.                sum += arr[i][j];
16.        System.out.print(sum);
17.    }
18. }
```

- a) 11
- b) 10
- c) 13
- d) 14

View Answer

Answer: b

Explanation: arr[][] is a 2D array, array has been allotted memory in parts. 1st row contains 1 element, 2nd row contains 2 elements and 3rd row contains 3 elements. each element of array is given i + j value in loop. sum contains addition of all the elements of the array.

output:

```
$ javac multidimension_array.java
$ java multidimension_array
10
```

8. What is the output of this program?

advertisement

```
1. class evaluate
2. {
3.     public static void main(String args[])
4.     {
5.         int arr[] = new int[] {0 , 1, 2, 3, 4, 5, 6, 7, 8, 9};
6.         int n = 6;
7.         n = arr[arr[n] / 2];
8.         System.out.println(arr[n] / 2);
9.     }
10. }
```

- a) 3
- b) 0
- c) 6
- d) 1

View Answer

Answer: d

Explanation: Array arr contains 10 elements. n contains 6 thus in next line n is given value 2 printing arr[2]/2 i.e 2/2 = 1.

output:

```
$ javac evaluate.java
$ java evaluate
1
```

<pre>  
[/expand]

9. What is the output of this program?

```
<pre lang="java" line="1" cssfile="hkl_style">
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

View Answer Answer: d

Explanation: None.

output:

```
$ javac array_output.java
$ java array_output
i i i i i i i i i i
```

10. What is the output of this program?

```
1. class array_output
2. {
3.     public static void main(String args[])
4.     {
5.         int array_variable[][] = {{ 1, 2, 3}, { 4 , 5, 6}, { 7, 8, 9}};
6.         int sum = 0;
7.         for (int i = 0; i < 3; ++i)
8.             for (int j = 0; j < 3 ; ++j)
9.                 sum = sum + array_variable[i][j];
10.        System.out.print(sum / 5);
11.    }
12. }
```

- a) 8
- b) 9
- c) 10
- d) 11

View Answer

Answer: b

Explanation: None.

output:

```
$ javac array_output.java
$ java array_output
9
```

### Java Questions & Answers – Data Structures-Arrays

This set of Tricky Java Questions and Answers focuses on “Data Structures-Arrays”.

1. What is the type of variable ‘b’ and ‘d’ in the below snippet?

```
int a[], b;
int []c, d;
```

- a) ‘b’ and ‘d’ are int
- b) ‘b’ and ‘d’ are arrays of type int
- c) ‘b’ is int variable; ‘d’ is int array
- d) ‘d’ is int variable; ‘b’ is int array

View Answer

Answer: c

Explanation: If [] is declared after variable it is applicable only to one variable. If [] is declared before variable it is applicable to all the variables.

2. Which of these is an incorrect array declaration?

- a) int arr[] = new int[5];
- b) int [] arr = new int[5];
- c) int arr[];
- d) int arr[] = int [5] new;

View Answer

Answer: d

Explanation: Operator new must be succeeded by array type and array size. The order is important and determines the type of variable.

3. What will this code print?

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

- a) 0
- b) value stored in arr[0].
- c) 00000
- d) Garbage value

View Answer

Answer: d

Explanation: arr is an array variable, it is pointing to array of integers. Printing arr will print garbage value. It is not same as printing arr[0].

4. What is the output of below snippet?

```
1. Object[] names = new String[3];
2. names[0] = new Integer(0);
```

- a) ArrayIndexOutOfBoundsException
- b) ArrayStoreException
- c) Compilation Error
- d) Code runs successfully

View Answer

Answer: b

Explanation: ArrayIndexOutOfBoundsException comes when code tries to access an invalid index for a given array. ArrayStoreException comes when you have stored an element of type other than the type of array.

5. Generics does not work with?

- a) Set
- b) List
- c) Tree
- d) Array

View Answer

Answer: d

Explanation: Generics gives the flexibility to strongly typecast collections. Generics is applicable to Set, List and Tree. It is not applicable to Array.

6. How to sort an array?

- a) Array.sort()
- b) Arrays.sort()
- c) Collection.sort()
- d) System.sort()

View Answer

Answer: b

Explanation: Arrays class contains various methods for manipulating arrays (such as sorting and searching). Array is not a valid class.  
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7. How to copy contents of array?

- a) System.arrayCopy()
- b) Array.copy()
- c) Arrays.copy()
- d) Collection.copy()

View Answer

Answer: a

Explanation: Arrays class contains various methods for manipulating arrays (such as sorting and searching). Array is not a valid class.

8. Can you make an array volatile?

- a) True
- b) False

View Answer

Answer: a

Explanation: You can only make variable pointing to array volatile. If array is changed by replacing individual elements then guarantee provided by volatile variable will not be held.

9. Where is array stored in memory?

- a) heap space
- b) stack space
- c) heap space and stack space
- d) first generation memory

View Answer

Answer: a

Explanation: Array is stored in heap space. Whenever an object is created, it's always stored in the Heap space and stack memory contains the reference to it.

10. An array elements are always stored in \_\_\_\_\_ memory locations?

- a) Sequential
- b) Random
- c) Sequential and Random
- d) Binary search

View Answer

Answer: a

Explanation: Array elements are stored in contiguous memory. Linked List is stored in random memory locations.

### Java Questions & Answers – Arithmetic Operators

This section of our 1000+ Java MCQs focuses on Arithmetic Operators of Java Programming Language.

1. Which of the following can be operands of arithmetic operators?

- a) Numeric
- b) Boolean
- c) Characters
- d) Both Numeric & Characters

View Answer

Answer:d

Explanation: The operand of arithmetic operators can be any of numeric or character type, But not boolean.

2. Modulus operator, %, can be applied to which of these?

- a) Integers
- b) Floating – point numbers
- c) Both Integers and floating – point numbers.
- d) None of the mentioned

View Answer

Answer:c

Explanation: Modulus operator can be applied to both integers and floating point numbers. .

3. With x = 0, which of the following are legal lines of Java code for changing the value of x to 1?

- 1. x++;
- 2. x = x + 1;
- 3. x += 1;
- 4. x =+ 1;

- a) 1, 2 & 3
- b) 1 & 4
- c) 1, 2, 3 & 4
- d) 3 & 2

View Answer

Answer: c

Explanation: Operator ++ increases value of variable by 1. x = x + 1 can also be written in shorthand form as x += 1. Also x =+ 1 will set the value of x to 1.

4. Decrement operator, —, decreases value of variable by what number?

- a) 1
- b) 2
- c) 3
- d) 4

View Answer

Answer: a

Explanation: None.

5. Which of these statements are incorrect?

- a) Assignment operators are more efficiently implemented by Java run-time system than their equivalent long forms.
- b) Assignment operators run faster than their equivalent long forms.
- c) Assignment operators can be used only with numeric and character data type.
- d) None

View Answer

Answer: d

Explanation: None.

6. What is the output of this program?

```

1.      class increment
2.      {
3.          public static void main(String args[])
4.          {
5.              double var1 = 1 + 5;
6.              double var2 = var1 / 4;
7.              int var3 = 1 + 5;
8.              int var4 = var3 / 4;
9.              System.out.print(var2 + " " + var4);
10.
11.          }
12.      }
```

- a) 1 1
- b) 0 1
- c) 1.5 1

d) 1.5 1.0

View Answer

Answer:c

Explanation: None

output:

```
$ javac increment.java
```

```
$ java increment
```

```
1.5 1
```

7. What is the output of this program?

```
1.      class Modulus
2.      {
3.          public static void main(String args[])
4.          {
5.              double a = 25.64;
6.              int b = 25;
7.              a = a % 10;
8.              b = b % 10;
9.              System.out.println(a + " " + b);
10.         }
11.     }
```

a) 5.6400000000000001 5

b) 5.6400000000000001 5.0

c) 5 5

d) 5 5.6400000000000001

View Answer

Answer: a

Explanation: Modulus operator returns the remainder of a division operation on the operand. a = a % 10 returns 25.64 % 10 i.e 5.6400000000000001.

Similarly b = b % 10 returns 5.

output:

```
$ javac Modulus.java
```

```
$ java Modulus
```

```
5.6400000000000001 5
```

8. What is the output of this program?

```
1.      class increment
2.      {
3.          public static void main(String args[])
4.          {
5.              int g = 3;
6.              System.out.print(++g * 8);
7.          }
8.      }
```

a) 25

b) 24

c) 32

d) 33

View Answer

Answer:c

Explanation: Operator ++ has more preference than \*, thus g becomes 4 and when multiplied by 8 gives 32.

output:

advertisement

```
$ javac increment.java
```

```
$ java increment
```

```
32
```

9. Can 8 byte long data type be automatically type cast to 4 byte float data type?

a) True

b) False

View Answer

Answer: a

Explanation: Both data types have different memory representation that's why 8-byte integral data type can be stored to 4-byte floating point data type.

10. What is the output of this program?

```
1.      class Output
2.      {
3.          public static void main(String args[])
4.          {
5.              int a = 1;
```

```

6.          int b = 2;
7.          int c;
8.          int d;
9.          c = ++b;
10.         d = a++;
11.         c++;
12.         b++;
13.         ++a;
14.         System.out.println(a + " " + b + " " + c);
15.     }
16. }
```

a) 3 2 4

b) 3 2 3

c) 2 3 4

d) 3 4 4

View Answer

Answer: d

Explanation: None.

output:

```
$ javac Output.java
```

```
$ java Output
```

```
3 4 4
```

### Java Questions & Answers – Bitwise Operators

This section of our 1000+ Java MCQs focuses on Bitwise operators of Java Programming Language.

1. Which of these is not a bitwise operator?

a) &

b) &=

c) |=

d) <=

View Answer

Answer:d

Explanation: <= is a relational operator.

2. Which operator is used to invert all the digits in binary representation of a number?

a) ~

b) <<<

c) >>>

d) ^

View Answer

Answer:a

Explanation: Unary not operator, ~, inverts all of the bits of its operand in binary representation.

3. On applying Left shift operator, <<, on an integer bits are lost one they are shifted past which position bit?

a) 1

b) 32

c) 33

d) 31

View Answer

Answer: d

Explanation: The left shift operator shifts all of the bits in a value to the left specified number of times. For each shift left, the high order bit is shifted out and lost, zero is brought in from right. When a left shift is applied to an integer operand, bits are lost once they are shifted past the bit position 31.

4. Which right shift operator preserves the sign of the value?

a) <<

b) >>

c) <<=

d) >>=

View Answer

Answer: b

Explanation: None.

5. Which of these statements are incorrect?

a) The left shift operator, <<, shifts all of the bits in a value to the left specified number of times

b) The right shift operator, >>, shifts all of the bits in a value to the right specified number of times

c) The left shift operator can be used as an alternative to multiplying by 2

d) The right shift operator automatically fills the higher order bits with 0

View Answer

Answer: d

Explanation: The right shift operator automatically fills the higher order bit with its previous contents each time a shift occurs. This also preserves the sign of the value.

6. What is the output of this program?

```

1.      class bitwise_operator
2.      {
3.          public static void main(String args[])
4.          {
5.              int var1 = 42;
6.              int var2 = ~var1;
7.              System.out.print(var1 + " " + var2);
8.          }
9.      }

```

- a) 42 42
- b) 43 43
- c) 42 -43
- d) 42 43

View Answer

Answer:c

Explanation: Unary not operator, ~, inverts all of the bits of its operand. 42 in binary is 00101010 in using ~ operator on var1 and assigning it to var2 we get inverted value of 42 i.e 11010101 which is -43 in decimal.

output:

```

$ javac bitwise_operator.java
$ java bitwise_operator
42 -43

```

7. What is the output of this program?

```

1.      class bitwise_operator
2.      {
3.          public static void main(String args[])
4.          {
5.              int a = 3;
6.              int b = 6;
7.              int c = a | b;
8.              int d = a & b;
9.              System.out.println(c + " " + d);
10.         }
11.     }

```

- a) 7 2
- b) 7 7
- c) 7 5
- d) 5 2

View Answer

Answer: a

Explanation: And operator produces 1 bit if both operand are 1. Or operator produces 1 bit if any bit of the two operands in 1.

output:

advertisement

```

$ javac bitwise_operator.java
$ java bitwise_operator
7 2

```

8. What is the output of this program?

```

1.      class leftshift_operator
2.      {
3.          public static void main(String args[])
4.          {
5.              byte x = 64;
6.              int i;
7.              byte y;
8.              i = x << 2;
9.              y = (byte) (x << 2);
10.             System.out.print(i + " " + y);
11.         }
12.     }

```

- a) 0 64
- b) 64 0
- c) 0 256
- d) 256 0

View Answer

Answer:d

Explanation: None.

output:

```
$ javac leftshift_operator.java
$ java leftshift_operator
256 0
```

9. What is the output of this program?

```
1.      class rightshift_operator
2.      {
3.          public static void main(String args[])
4.          {
5.              int x;
6.              x = 10;
7.              x = x >> 1;
8.              System.out.println(x);
9.          }
10.     }
```

- a) 10
- b) 5
- c) 2
- d) 20

View Answer

Answer: b

Explanation: Right shift operator, >>, divides the value by 2.

output:

```
$ javac rightshift_operator.java
$ java rightshift_operator
5
```

10. What is the output of this program?

```
1.      class Output
2.      {
3.          public static void main(String args[])
4.          {
5.              int a = 1;
6.              int b = 2;
7.              int c = 3;
8.              a |= 4;
9.              b >>= 1;
10.             c <<= 1;
11.             a ^= c;
12.             System.out.println(a + " " + b + " " + c);
13.         }
14.     }
```

- a) 3 1 6
- b) 2 2 3
- c) 2 3 4
- d) 3 3 6

View Answer

Answer: a

Explanation: None.

output:

```
$ javac Output.java
$ java Output
3 1 6
```

### Java Questions & Answers – Relational Operators and Boolean Logic Operators

This section of our 1000+ Java MCQs focuses on relational operators and boolean logic operators of Java Programming Language.

1. What is the output of relational operators?

- a) Integer
- b) Boolean
- c) Characters
- d) Double

View Answer

Answer: b

Explanation: None.

2. Which of these is returned by “greater than”, “less than” and “equal to” operators?

- a) Integers



- b) Floating – point numbers
- c) Boolean
- d) None of the mentioned

View Answer

Answer:c

Explanation: All relational operators return a boolean value ie. true and false.

3. Which of the following operators can operate on a boolean variable?

- 1. &&
- 2. ==
- 3. ?:
- 4. +=

- a) 3 & 2
- b) 1 & 4
- c) 1, 2 & 4
- d) 1, 2 & 3

View Answer

Answer: d

Explanation: Operator Short circuit AND, &&, equal to, == , ternary if-then-else, ?:, are boolean logical operators. += is an arithmetic operator it can operate only on numeric values.

4. Which of these operators can skip evaluating right hand operand?

- a) !
- b) |
- c) &
- d) &&

View Answer

Answer: d

Explanation: Operator short circuit and, &&, and short circuit or, ||, skip evaluating right hand operand when output can be determined by left operand alone.

5. Which of these statement is correct?

- a) true and false are numeric values 1 and 0
- b) true and false are numeric values 0 and 1
- c) true is any non-zero value and false is 0
- d) true and false are non-numeric values

View Answer

Answer: d

Explanation: True and false are keywords, they are non-numeric values which do not relate to zero or non-zero numbers. true and false are boolean values.

6. What is the output of this program?

```

1.      class Relational_operator
2.      {
3.          public static void main(String args[])
4.          {
5.              int var1 = 5;
6.              int var2 = 6;
7.              System.out.print(var1 > var2);
8.          }
9.      }
```

- a) 1
- b) 0
- c) true
- d) false

View Answer

Answer:d

Explanation: Operator > returns a boolean value. 5 is not greater than 6 therefore false is returned.

output:

```

$ javac Relational_operator.java
$ java Relational_operator
false
```

7. What is the output of this program?

```

1.      class bool_operator
2.      {
3.          public static void main(String args[])
4.          {
5.              boolean a = true;
6.              boolean b = !true;
7.              boolean c = a | b;
```

```

8.      boolean d = a & b;
9.      boolean e = d ? b : c;
10.     System.out.println(d + " " + e);
11.     }
12.     }

```

- a) false false
- b) true ture
- c) true false
- d) false true

View Answer

Answer: d

Explanation: Operator | returns true if any one operand is true, thus 'c = true | false' is true. Operator & returns a true if both of the operand is true thus d is false. Ternary operator ?: assigns left of ':' if condition is true and right hand of ':' if condition is false. d is false thus e = d ? b : c , assigns c to e , e contains true.

output:

```

$ javac bool_operator.java
$ java bool_operator
false true

```

8. What is the output of this program?

```

1.      class ternary_operator
2.      {
3.          public static void main(String args[])
4.          {
5.              int x = 3;
6.              int y = ~ x;
7.              int z;
8.              z = x > y ? x : y;
9.              System.out.print(z);
10.         }
11.     }

```

- a) 0
- b) 1
- c) 3
- d) -4

View Answer

Answer:c

Explanation: None.

output:

advertisement

```

$ javac ternary_operator.java
$ java ternary_operator
3

```

9. What is the output of this program?

```

1.      class Output
2.      {
3.          public static void main(String args[])
4.          {
5.              int x , y = 1;
6.              x = 10;
7.              if (x != 10 && x / 0 == 0)
8.                  System.out.println(y);
9.              else
10.                 System.out.println(++y);
11.         }
12.     }

```

- a) 1
- b) 2
- c) Runtime error owing to division by zero in if condition
- d) Unpredictable behavior of program

View Answer

Answer: b

Explanation: Operator short circuit and, &&, skips evaluating right hand operand if left hand operand is false thus division by zero in if condition does not give an error.

output:

```

$ javac Output.java
$ java Output
2

```

2

10. What is the output of this program?

```

1.      class Output
2.      {
3.          public static void main(String args[])
4.          {
5.              boolean a = true;
6.              boolean b = false;
7.              boolean c = a ^ b;
8.              System.out.println(!c);
9.          }
10.     }
```

- a) 0
- b) 1
- c) false
- d) true

[View Answer](#)

Answer: c

Explanation: None.

output:

```

$ javac Output.java
$ java Output
false
```

### Java Questions & Answers – Assignment Operators and Operator Precedence

This section of our 1000+ Java MCQs focuses on assignment operators and operator precedence in Java Programming Language.

1. Which of these have highest precedence?

- a) ()
- b) ++
- c) \*
- d) >>

[View Answer](#)

Answer: a

Explanation: Order of precedence is (highest to lowest) a -> b -> c -> d.

2. What should be expression1 evaluate to in using ternary operator as in this line?

```
expression1 ? expression2 : expression3
```

- a) Integer
- b) Floating – point numbers
- c) Boolean
- d) None of the mentioned

[View Answer](#)

Answer: c

Explanation: The controlling condition of ternary operator must evaluate to boolean.

3. What is the value stored in x in following lines of code?

```

int x, y, z;
x = 0;
y = 1;
x = y = z = 8;
```

- a) 0
- b) 1
- c) 9
- d) 8

[View Answer](#)

Answer: d

Explanation: None.

4. What is the order of precedence (highest to lowest) of following operators?

- 1. &
- 2. ^
- 3. ?:

- a) 1 -> 2 -> 3
- b) 2 -> 1 -> 3
- c) 3 -> 2 -> 1
- d) 2 -> 3 -> 1

[View Answer](#)

Answer: a

Explanation: None.

5. Which of these statements are incorrect?

- a) Equal to operator has least precedence
- b) Brackets () have highest precedence
- c) Division operator, /, has higher precedence than multiplication operator
- d) Addition operator, +, and subtraction operator have equal precedence

View Answer

Answer: c

Explanation: Division operator, /, has equal precedence as of multiplication operator. In expression involving multiplication and division evaluation of expression will begin from right side when no brackets are used.

6. What is the output of this program?

```

1.      class operators
2.      {
3.          public static void main(String args[])
4.          {
5.              int var1 = 5;
6.              int var2 = 6;
7.              int var3;
8.              var3 = ++ var2 * var1 / var2 + var2;
9.              System.out.print(var3);
10.         }
11.     }

```

- a) 10
- b) 11
- c) 12
- d) 56

View Answer

Answer: c

Explanation: Operator ++ has the highest precedence than /, \* and +. var2 is incremented to 7 and then used in expression,  $\text{var3} = 7 * 5 / 7 + 7$ , gives 12.

output:

```

$ javac operators.java
$ java operators
12

```

7. What is the output of this program?

```

1.      class operators
2.      {
3.          public static void main(String args[])
4.          {
5.              int x = 8;
6.              System.out.println(++x * 3 + " " + x);
7.          }
8.      }

```

- a) 24 8
- b) 24 9
- c) 27 8
- d) 27 9

View Answer

Answer: d

Explanation: Operator ++ has higher precedence than multiplication operator, \*, x is incremented to 9 then multiplied with 3 giving 27.

output:

advertisement

```

$ javac operators.java
$ java operators
27 9

```

8. What is the output of this program?

```

1. class Output
2. {
3.     public static void main(String args[])
4.     {
5.         int x=y=z=20;
6.
7.     }
8. }

```

- a) compile and runs fine
- b) 20
- c) run time error

d) compile time error

View Answer

Answer:d

Explanation: None.

9. Which of these lines of code will give better performance?

1. `a | 4 + c >> b & 7;`
2. `(a | ((( 4 * c ) >> b ) & 7 ))`

- a) 1 will give better performance as it has no parentheses.
- b) 2 will give better performance as it has parentheses.
- c) Both 1 & 2 will give equal performance.
- d) Dependent on the computer system.

View Answer

10. What is the output of this program?

```
1. class Output
2. {
3.     public static void main(String args[])
4.     {
5.         int a,b,c,d;
6.         a=b=c=d=20
7.         a+=b-=c*=d/=20
8.         System.out.println(a+" "+b+" "+c+" "+d);
9.
10.    }
11. }
```

- a) compile time error
- b) runtime error
- c) a=20 b=0 c=20 d=1
- d) none of the mentioned

View Answer

Answer: c

Explanation: Expression will evaluate from right to left.

output:

```
$ javac Output.java
$ java Output
20 0 20 1
```

### Java Questions & Answers – Control Statements – 1

This section of our 1000+ Java MCQs focuses on control statements of Java Programming Language.

1. Which of these selection statements test only for equality?

- a) if
- b) switch
- c) if & switch
- d) none of the mentioned

View Answer

Answer: b

Explanation: Switch statements checks for equality between the controlling variable and its constant cases.

2. Which of these are selection statements in Java?

- a) if()
- b) for()
- c) continue
- d) break

View Answer

Answer:a

Explanation: Continue and break are jump statements, and for is an looping statement.

3. Which of the following loops will execute the body of loop even when condition controlling the loop is initially false?

- a) do-while
- b) while
- c) for
- d) none of the mentioned

View Answer

Answer: a

Explanation: None.

4. Which of these jump statements can skip processing remainder of code in its body for a particular iteration?

- a) break
- b) return
- c) exit

d) continue

View Answer

Answer: d

Explanation: None.

5. Which of these statement is incorrect?

- a) switch statement is more efficient than a set of nested ifs
- b) two case constants in the same switch can have identical values
- c) switch statement can only test for equality, whereas if statement can evaluate any type of boolean expression
- d) it is possible to create a nested switch statements

View Answer

Answer: b

Explanation: No two case constants in the same switch can have identical values.

6. What is the output of this program?

```

1.      class selection_statements
2.      {
3.          public static void main(String args[])
4.          {
5.              int var1 = 5;
6.              int var2 = 6;
7.              if ((var2 = 1) == var1)
8.                  System.out.print(var2);
9.              else
10.                 System.out.print(++var2);
11.          }
12.      }
```

- a) 1
- b) 2
- c) 3
- d) 4

View Answer

Answer: b

Explanation: var2 is initialised to 1. The conditional statement returns false and the else part gets executed.

output:

```

$ javac selection_statements.java
$ java selection_statements
2
```

7. What is the output of this program?

```

1.      class comma_operator
2.      {
3.          public static void main(String args[])
4.          {
5.              int sum = 0;
6.              for (int i = 0, j = 0; i < 5 & j < 5; ++i, j = i + 1)
7.                  sum += i;
8.              System.out.println(sum);
9.          }
10.     }
```

- a) 5
- b) 6
- c) 14
- d) compilation error

View Answer

Answer: b

Explanation: Using comma operator , we can include more than one statement in the initialization and iteration portion of the for loop. Therefore both ++i and j = i + 1 is executed i gets the value - 0,1,2,3,4 & j gets the values -0,1,2,3,4,5.

output:

advertisement

```

$ javac comma_operator.java
$ java comma_operator
6
```

8. What is the output of this program?

```

1.      class jump_statments
2.      {
3.          public static void main(String args[])
4.          {
5.              int x = 2;
```

```

6.         int y = 0;
7.         for ( ; y < 10; ++y)
8.         {
9.             if (y % x == 0)
10.                continue;
11.             else if (y == 8)
12.                 break;
13.             else
14.                 System.out.print(y + " ");
15.         }
16.     }
17. }

```

- a) 1 3 5 7
- b) 2 4 6 8
- c) 1 3 5 7 9
- d) 1 2 3 4 5 6 7 8 9

View Answer

Answer: c

Explanation: Whenever y is divisible by x remainder body of loop is skipped by continue statement, therefore if condition y == 8 is never true as when y is 8, remainder body of loop is skipped by continue statements of first if. Control comes to print statement only in cases when y is odd.

output:

```

$ javac jump_statments.java
$ java jump_statments
1 3 5 7 9

```

9. What is the output of this program?

```

1. class Output
2. {
3.     public static void main(String args[])
4.     {
5.         final int a=10,b=20;
6.         while(a<b)
7.         {
8.
9.             System.out.println("Hello");
10.        }
11.        System.out.println("World");
12.
13.    }
14. }

```

- a) Hello
- b) run time error
- c) Hello world
- d) compile time error

View Answer

Answer: d

Explanation: Every final variable is compile time constant.

10. What is the output of this program?

```

1. class Output
2. {
3.     public static void main(String args[])
4.     {
5.         int a = 5;
6.         int b = 10;
7.         first:
8.         {
9.             second:
10.            {
11.                third:
12.                {
13.                    if (a == b >> 1)
14.                        break second;
15.                }
16.                System.out.println(a);
17.            }
18.            System.out.println(b);
19.        }

```

```
20.      }
21.    }
```

- a) 5 10
- b) 10 5
- c) 5
- d) 10

View Answer

Answer: d

Explanation:  $b >> 1$  in if returns 5 which is equal to a i.e 5, therefore body of if is executed and block second is exited. Control goes to end of the block second executing the last print statement, printing 10.

output:

```
$ javac Output.java
$ java Output
10
```

### Java Questions & Answers – Control Statements – 2

This set of Java Multiple Choice Questions & Answers (MCQs) focuses on “Control Statements”.

1. What would be the output of the following codesnippet if variable a=10?

```
1.  if (a<=0)
2.  {
3.      if (a==0)
4.      {
5.          System.out.println("1 ");
6.      }
7.      else
8.      {
9.          System.out.println("2 ");
10.     }
11. }
12. System.out.println("3 ");
```

- a) 1 2
- b) 2 3
- c) 1 3
- d) 3

View Answer

Answer: d

Explanation: Since the first if condition is not met, control would not go inside if statement and hence only statement after the entire if block will be executed.

2. The while loop repeats a set of code while the condition is not met?

- a) True
- b) False

View Answer

Answer: b

Explanation: While loop repeats a set of code only until condition is met.

3. What is true about break?

- a) Break stops the execution of entire program
- b) Break halts the execution and forces the control out of the loop
- c) Break forces the control out of the loop and starts the execution of next iteration.
- d) Break halts the execution of the loop for certain time frame

View Answer

Answer: b

Explanation: Break halts the execution and forces the control out of the loop.

4. What is true about do statement?

- a) do statement executes the code of a loop at least once
- b) do statement does not get execute if condition is not matched in the first iteration
- c) do statement checks the condition at the beginning of the loop
- d) do statement executes the code more than once always

View Answer

Answer: a

Explanation: Do statement checks the condition at the end of the loop. Hence, code gets executed at least once.

5. Which of the following is used with switch statement?

- a) Continue
- b) Exit
- c) break
- d) do

View Answer



Answer: c

Explanation: Break is used with switch statement to shift control out of switch.

6. What is the valid data type for variable "a" to print "Hello World"?

```
1. switch(a)
2. {
3.     System.out.println("Hello World");
4. }
```

- a) int and float
- b) byte and short
- c) char and long
- d) byte and char

View Answer

Answer: d

Explanation: The switch condition would only meet if variable "a" is of type byte or char.

7. Which of the following is not a decision making statement?

- a) if
- b) if-else
- c) switch
- d) do-while

View Answer

Answer: d

Explanation: do-while is an iteration statement. Others are decision making statements.

8. Which of the following is not a valid jump statement?

- a) break
- b) goto
- c) continue
- d) return

View Answer

Answer: b

Explanation: break, continue and return transfer control to another part of the program and returns back to caller after execution. However, goto is marked as not used in Java.

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9. From where break statement causes an exit?

- a) Only from innermost loop
- b) Terminates a program
- c) Only from innermost switch
- d) From innermost loops or switches

View Answer

Answer: d

Explanation: The break statement causes an exit from innermost loop or switch.

10. Which of the following is not a valid flow control statement?

- a) exit()
- b) break
- c) continue
- d) return

View Answer

Answer: a

Explanation: exit() is not a flow control statement in Java. exit() terminates the currently running JVM.

### Java Questions & Answers – Class Fundamentals & Declaring objects

This section of our 1000+ Java MCQs focuses on class fundamentals & object declaration in Java Programming Language.

1. What is stored in the object obj in following lines of code?

```
box obj;
```

- a) Memory address of allocated memory of object
- b) NULL
- c) Any arbitrary pointer
- d) Garbage

View Answer

Answer: b

Explanation: Memory is allocated to an object using new operator. box obj; just declares a reference to object, no memory is allocated to it hence it points to NULL.

2. Which of these keywords is used to make a class?

- a) class
- b) struct
- c) int
- d) none of the mentioned

View Answer

Answer: a

Explanation: None.

3. Which of the following is a valid declaration of an object of class Box?

- a) Box obj = new Box();
- b) Box obj = new Box;
- c) obj = new Box();
- d) new Box obj;

View Answer

Answer: a

Explanation: None.

4. Which of these operators is used to allocate memory for an object?

- a) malloc
- b) alloc
- c) new
- d) give

View Answer

Answer: c

Explanation: Operator new dynamically allocates memory for an object and returns a reference to it. This reference is address in memory of the object allocated by new.

5. Which of these statement is incorrect?

- a) Every class must contain a main() method
- b) Applets do not require a main() method at all
- c) There can be only one main() method in a program
- d) main() method must be made public

View Answer

Answer: a

Explanation: Every class does not need to have a main() method, there can be only one main() method which is made public.

6. What is the output of this program?

```

1.      class main_class
2.      {
3.          public static void main(String args[])
4.          {
5.              int x = 9;
6.              if (x == 9)
7.              {
8.                  int x = 8;
9.                  System.out.println(x);
10.             }
11.         }
12.     }
```

- a) 9
- b) 8
- c) Compilation error
- d) Runtime error

View Answer

Answer: c

Explanation: Two variables with the same name can't be created in a class.

output:

```
$ javac main_class.java
```

```
Exception in thread "main" java.lang.Error: Unresolved compilation problem:
    Duplicate local variable x
```

7. Which of the following statements is correct?

- a) Public method is accessible to all other classes in the hierarchy
- b) Public method is accessible only to subclasses of its parent class
- c) Public method can only be called by object of its class
- d) Public method can be accessed by calling object of the public class

View Answer

Answer: a

Explanation: None.

advertisement

8. What is the output of this program?

```

1.      class box
2.      {
3.          int width;
4.          int height;
5.          int length;
```

```

6.     }
7.     class mainclass
8.     {
9.         public static void main(String args[])
10.        {
11.            box obj = new box();
12.            obj.width = 10;
13.            obj.height = 2;
14.            obj.length = 10;
15.            int y = obj.width * obj.height * obj.length;
16.            System.out.print(y);
17.        }
18.    }

```

a) 12

b) 200

c) 400

d) 100

View Answer

Answer: b

Explanation: None.

output:

```
$ javac mainclass.java
```

```
$ java mainclass
```

```
200
```

9. What is the output of this program?

```

1.     class box
2.     {
3.         int width;
4.         int height;
5.         int length;
6.     }
7.     class mainclass
8.     {
9.         public static void main(String args[])
10.        {
11.            box obj1 = new box();
12.            box obj2 = new box();
13.            obj1.height = 1;
14.            obj1.length = 2;
15.            obj1.width = 1;
16.            obj2 = obj1;
17.            System.out.println(obj2.height);
18.        }
19.    }

```

a) 1

b) 2

c) Runtime error

d) Garbage value

View Answer

Answer: a

Explanation: When we assign an object to another object of same type, all the elements of right side object gets copied to object on left side of equal to, =, operator.

output:

```
$ javac mainclass.java
```

```
$ java mainclass
```

```
1
```

10. What is the output of this program?

```

1.     class box
2.     {
3.         int width;
4.         int height;
5.         int length;
6.     }
7.     class mainclass
8.     {
9.         public static void main(String args[])

```

```

10.      {
11.          box obj = new box();
12.          System.out.println(obj);
13.      }
14.  }
```

- a) 0
- b) 1
- c) Runtime error
- d) classname@hashcode in hexadecimal form

View Answer

Answer: d

Explanation: When we print object internally toString() will be called to return string into this format classname@hashcode in hexadecimal form.  
output:

```

$ javac mainclass.java
$ java mainclass
box@130671e
```

### Java Questions & Answers – The Object Class

This section of our 1000+ Java MCQs focuses on Object class of Java Programming Language.

1. Which of these class is superclass of every class in Java?

- a) String class
- b) Object class
- c) Abstract class
- d) ArrayList class

View Answer

Answer: b

Explanation: Object class is superclass of every class in Java.

2. Which of these method of Object class can clone an object?

- a) Objectcopy()
- b) copy()
- c) Object clone()
- d) clone()

View Answer

Answer: c

Explanation: None.

3. Which of these method of Object class is used to obtain class of an object at run time?

- a) get()
- b) void getClass()
- c) Class getClass()
- d) None of the mentioned

View Answer

Answer: c

Explanation: None.

4. Which of these keywords can be used to prevent inheritance of a class?

- a) super
- b) constant
- c) class
- d) final

View Answer

Answer: d

Explanation: Declaring a class final implicitly declared all of its methods final, and makes the class inheritable.

5. Which of these keywords cannot be used for a class which has been declared final?

- a) abstract
- b) extends
- c) abstract and extends
- d) none of the mentioned

View Answer

Answer: a

Explanation: A abstract class is incomplete by itself and relies upon its subclasses to provide complete implementation. If we declare a class final then no class can inherit that class, an abstract class needs its subclasses hence both final and abstract cannot be used for a same class.

6. Which of these class relies upon its subclasses for complete implementation of its methods?

- a) Object class
- b) abstract class
- c) ArrayList class

d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: None.

7. What is the output of this program?

```

1.      abstract class A
2.      {
3.          int i;
4.          abstract void display();
5.      }
6.      class B extends A
7.      {
8.          int j;
9.          void display()
10.         {
11.             System.out.println(j);
12.         }
13.     }
14.     class Abstract_demo
15.     {
16.         public static void main(String args[])
17.         {
18.             B obj = new B();
19.             obj.j=2;
20.             obj.display();
21.         }
22.     }

```

a) 0

b) 2

c) Runtime Error

d) Compilation Error

[View Answer](#)

Answer: b

Explanation: class A is an abstract class, it contains a abstract function display(), the full implementation of display() method is given in its subclass B, Both the display functions are the same. Prototype of display() is defined in class A and its implementation is given in class B.

output:

```
$ javac Abstract_demo.java
```

```
$ java Abstract_demo
```

```
2
```

8. What is the output of this program?

```

1.      class A
2.      {
3.          int i;
4.          int j;
5.          A()
6.          {
7.              i = 1;
8.              j = 2;
9.          }
10.     }
11.     class Output
12.     {
13.         public static void main(String args[])
14.         {
15.             A obj1 = new A();
16.             A obj2 = new A();
17.             System.out.print(obj1.equals(obj2));
18.         }
19.     }

```

a) false

b) true

c) 1

d) Compilation Error

[View Answer](#)

Answer: a

Explanation: obj1 and obj2 are two different objects. equals() is a method of Object class, Since Object class is superclass of every class it is

available to every object.

output:

advertisement

```
$ javac Output.java
$ java Output
false
```

9. What is the output of this program?

```
1. class Output
2. {
3.     public static void main(String args[])
4.     {
5.         Object obj = new Object();
6.         System.out.print(obj.getClass());
7.     }
8. }
```

- a) Object
- b) class Object
- c) class java.lang.Object
- d) Compilation Error

View Answer

Answer: c

Explanation: None.

output:

```
$ javac Output.java
$ java Output
class java.lang.Object
```

10. What is the output of this program?

```
1. class A
2. {
3.     int i;
4.     int j;
5.     A()
6.     {
7.         i = 1;
8.         j = 2;
9.     }
10. }
11. class Output
12. {
13.     public static void main(String args[])
14.     {
15.         A obj1 = new A();
16.         System.out.print(obj1.toString());
17.     }
18. }
```

- a) true
- b) false
- c) String associated with obj1
- d) Compilation Error

View Answer

Answer: c

Explanation: toString() is method of class Object, since it is superclass of every class, every object has this method. toString() returns the string associated with the calling object.

output:

```
$ javac Output.java
$ java Output
A@1cd2e5f
```

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### Java Questions & Answers – Inheritance – Abstract Class and Super

This section of our 1000+ Java MCQs focuses on Abstract class in Java Programming Language.

1. Which of these keywords are used to define an abstract class?

- a) abst
- b) abstract

- c) Abstract
- d) abstract class

View Answer

Answer: b

Explanation: None.

2. Which of these is not abstract?

- a) Thread
- b) AbstractList
- c) List
- d) None of the Mentioned

View Answer

Answer: a

Explanation: Thread is not an abstract class.

3. If a class inheriting an abstract class does not define all of its function then it will be known as?

- a) Abstract
- b) A simple class
- c) Static class
- d) None of the mentioned

View Answer

Answer: a

Explanation: Any subclass of an abstract class must either implement all of the abstract method in the superclass or be itself declared abstract.

4. Which of these is not a correct statement?

- a) Every class containing abstract method must be declared abstract
- b) Abstract class defines only the structure of the class not its implementation
- c) Abstract class can be initiated by new operator
- d) Abstract class can be inherited

View Answer

Answer: c

Explanation: Abstract class cannot be directly initiated with new operator, Since abstract class does not contain any definition of implementation it is not possible to create an abstract object.

5. Which of these packages contains abstract keyword?

- a) java.lang
- b) java.util
- c) java.io
- d) java.system

View Answer

Answer: a

Explanation: None.

6. What is the output of this program?

```

1.      class A
2.      {
3.          public int i;
4.          private int j;
5.      }
6.      class B extends A
7.      {
8.          void display()
9.          {
10.             super.j = super.i + 1;
11.             System.out.println(super.i + " " + super.j);
12.          }
13.      }
14.      class inheritance
15.      {
16.          public static void main(String args[])
17.          {
18.              B obj = new B();
19.              obj.i=1;
20.              obj.j=2;
21.              obj.display();
22.          }
23.      }
```

- a) 2 2
- b) 3 3
- c) Runtime Error
- d) Compilation Error

[View Answer](#)

Answer: d

Explanation: Class contains a private member variable j, this cannot be inherited by subclass B and does not have access to it.

output:

```
$ javac inheritance.java
```

```
Exception in thread "main" java.lang.Error: Unresolved compilation problem:
    The field A.j is not visible
```

7. What is the output of this program?

```
1.      class A
2.      {
3.          public int i;
4.          public int j;
5.          A()
6.          {
7.              i = 1;
8.              j = 2;
9.          }
10.     }
11.     class B extends A
12.     {
13.         int a;
14.         B()
15.         {
16.             super();
17.         }
18.     }
19.     class super_use
20.     {
21.         public static void main(String args[])
22.         {
23.             B obj = new B();
24.             System.out.println(obj.i + " " + obj.j)
25.         }
26.     }
```

- a) 1 2
- b) 2 1
- c) Runtime Error
- d) Compilation Error

[View Answer](#)

Answer: a

Explanation: Keyword super is used to call constructor of class A by constructor of class B. Constructor of a initializes i & j to 1 & 2 respectively.

output:

```
$ javac super_use.java
```

```
$ java super_use
```

```
1 2
```

8. What is the output of this program?

```
1.      abstract class A
2.      {
3.          int i;
4.          abstract void display();
5.      }
6.      class B extends A
7.      {
8.          int j;
9.          void display()
10.         {
11.             System.out.println(j);
12.         }
13.     }
14.     class Abstract_demo
15.     {
```



```

16.      public static void main(String args[])
17.      {
18.          B obj = new B();
19.          obj.j=2;
20.          obj.display();
21.      }
22.  }

```

- a) 0
- b) 2
- c) Runtime Error
- d) Compilation Error

View Answer

Answer: b

Explanation: class A is an abstract class, it contains a abstract function display(), the full implementation of display() method is given in its subclass B, Both the display functions are the same. Prototype of display() is defined in class A and its implementation is given in class B.

output:

```

$ javac Abstract_demo.java
$ java Abstract_demo
2

```

9. What is the output of this program?

advertisement

```

1.      class A
2.      {
3.          int i;
4.          void display()
5.          {
6.              System.out.println(i);
7.          }
8.      }
9.      class B extends A
10.     {
11.         int j;
12.         void display()
13.         {
14.             System.out.println(j);
15.         }
16.     }
17.     class method_overriding
18.     {
19.         public static void main(String args[])
20.         {
21.             B obj = new B();
22.             obj.i=1;
23.             obj.j=2;
24.             obj.display();
25.         }
26.     }

```

- a) 0
- b) 1
- c) 2
- d) Compilation Error

View Answer

Answer: c

Explanation: class A & class B both contain display() method, class B inherits class A, when display() method is called by object of class B, display() method of class B is executed rather than that of Class A.

output:

```

$ javac method_overriding.java
$ java method_overriding
2

```

10. What is the output of this program?

```

1.      class A
2.      {
3.          public int i;
4.          protected int j;

```

```

5.      }
6.      class B extends A
7.      {
8.          int j;
9.          void display()
10.         {
11.             super.j = 3;
12.             System.out.println(i + " " + j);
13.         }
14.     }
15.     class Output
16.     {
17.         public static void main(String args[])
18.         {
19.             B obj = new B();
20.             obj.i=1;
21.             obj.j=2;
22.             obj.display();
23.         }
24.     }

```

- a) 1 2
- b) 2 1
- c) 1 3
- d) 3 1

[View Answer](#)

Answer: a

Explanation: Both class A & B have member with same name that is j, member of class B will be called by default if no specifier is used. i contains 1 & j contains 2, printing 1 2.

output:

```

$ javac Output.java
$ java Output
1 2

```

#### Java Questions & Answers – Inheritance – 1

This section of our 1000+ Java MCQs focuses on Inheritance of Java Programming Language.

1. Which of these keyword must be used to inherit a class?

- a) super
- b) this
- c) extent
- d) extends

[View Answer](#)

Answer: d

Explanation: None.

2. Which of these keywords is used to refer to member of base class from a subclass?

- a) upper
- b) super
- c) this
- d) none of the mentioned

[View Answer](#)

Answer: b

Explanation: Whenever a subclass needs to refer to its immediate superclass, it can do so by use of the keyword super.

3. A class member declared protected becomes member of subclass of which type?

- a) public member
- b) private member
- c) protected member
- d) static member

[View Answer](#)

Answer: b

Explanation: A class member declared protected becomes private member of subclass.

4. Which of these is correct way of inheriting class A by class B?

- a) class B + class A { }
- b) class B inherits class A { }
- c) class B extends A { }
- d) class B extends class A { }

[View Answer](#)

Answer: c

Explanation: None.

5. Which two classes use the Shape class correctly?

- A. `public class Circle implements Shape`  
`{`  
`private int radius;`  
`}`
- B. `public abstract class Circle extends Shape`  
`{`  
`private int radius;`  
`}`
- C. `public class Circle extends Shape`  
`{`  
`private int radius;`  
`public void draw();`  
`}`
- D. `public abstract class Circle implements Shape`  
`{`  
`private int radius;`  
`public void draw();`  
`}`
- E. `public class Circle extends Shape`  
`{`  
`private int radius;`  
`public void draw()`  
`{`  
`/* code here */`  
`}`  
`}`
- F. `public abstract class Circle implements Shape`  
`{`  
`private int radius;`  
`public void draw()`  
`{`  
`/* code here */`  
`}`  
`}`

a) B,E

b) A,C

c) C,E

d) T,H

View Answer

Answer: a

Explanation: If one is extending any class, then they should use extends keyword not implements.

6. What is the output of this program?

```

1.    class A
2.    {
3.        int i;
4.        void display()
5.        {
6.            System.out.println(i);
7.        }
8.    }
9.    class B extends A
10.   {
11.       int j;
12.       void display()
13.       {
14.           System.out.println(j);
15.       }
16.   }
17.   class inheritance_demo
18.   {
19.       public static void main(String args[])
20.       {
21.           B obj = new B();

```

```

22.         obj.i=1;
23.         obj.j=2;
24.         obj.display();
25.     }
26. }

```

- a) 0
- b) 1
- c) 2
- d) Compilation Error

View Answer

Answer: c

Explanation: Class A & class B both contain display() method, class B inherits class A, when display() method is called by object of class B, display() method of class B is executed rather than that of Class A.

output:

```

$ javac inheritance_demo.java
$ java inheritance_demo
2

```

7. What is the output of this program?

```

1.     class A
2.     {
3.         int i;
4.     }
5.     class B extends A
6.     {
7.         int j;
8.         void display()
9.         {
10.            super.i = j + 1;
11.            System.out.println(j + " " + i);
12.        }
13.    }
14.    class inheritance
15.    {
16.        public static void main(String args[])
17.        {
18.            B obj = new B();
19.            obj.i=1;
20.            obj.j=2;
21.            obj.display();
22.        }
23.    }

```

- a) 2 2
- b) 3 3
- c) 2 3
- d) 3 2

View Answer

Answer: c

Explanation: None

output:

```

$ javac inheritance.java
$ java inheritance
2 3

```

8. What is the output of this program?

```

1.     class A
2.     {
3.         public int i;
4.         private int j;
5.     }
6.     class B extends A
7.     {
8.         void display()
9.         {
10.            super.j = super.i + 1;
11.            System.out.println(super.i + " " + super.j);
12.        }
13.    }

```

```

14.    class inheritance
15.    {
16.        public static void main(String args[])
17.        {
18.            B obj = new B();
19.            obj.i=1;
20.            obj.j=2;
21.            obj.display();
22.        }
23.    }

```

- a) 2 2
- b) 3 3
- c) Runtime Error
- d) Compilation Error

View Answer

Answer: d

Explanation: Class contains a private member variable j, this cannot be inherited by subclass B and does not have access to it.

output:

advertisement

\$ javac inheritance.java

Exception in thread "main" java.lang.Error: Unresolved compilation problem:

The field A.j is not visible

9. What is the output of this program?

```

1.    class A
2.    {
3.        public int i;
4.        public int j;
5.        A()
6.        {
7.            i = 1;
8.            j = 2;
9.        }
10.   }
11.   class B extends A
12.   {
13.       int a;
14.       B()
15.       {
16.           super();
17.       }
18.   }
19.   class super_use
20.   {
21.       public static void main(String args[])
22.       {
23.           B obj = new B();
24.           System.out.println(obj.i + " " + obj.j)
25.       }
26.   }

```

- a) 1 2
- b) 2 1
- c) Runtime Error
- d) Compilation Error

View Answer

Answer: a

Explanation: Keyword super is used to call constructor of class A by constructor of class B. Constructor of a initializes i & j to 1 & 2 respectively.

output:

\$ javac super\_use.java

\$ java super\_use

1 2

10. What is the output of this program?

```

1.    class A
2.    {
3.        public int i;
4.        protected int j;
5.    }

```

```

6.      class B extends A
7.      {
8.          int j;
9.          void display()
10.         {
11.             super.j = 3;
12.             System.out.println(i + " " + j);
13.         }
14.     }
15.     class Output
16.     {
17.         public static void main(String args[])
18.         {
19.             B obj = new B();
20.             obj.i=1;
21.             obj.j=2;
22.             obj.display();
23.         }
24.     }

```

- a) 1 2
- b) 2 1
- c) 1 3
- d) 3 1

View Answer

Answer: a

Explanation: Both class A & B have member with same name that is j, member of class B will be called by default if no specifier is used. I contains 1 & j contains 2, printing 1 2.

output:

```

$ javac Output.java
$ java Output
1 2

```

### Java Questions & Answers – Inheritance – 2

This set of Java Interview Questions and Answers for freshers focuses on “Inheritance – 2”.

1. What is not type of inheritance?

- a) Single inheritance
- b) Double inheritance
- c) Hierarchical inheritance
- d) Multiple inheritance

View Answer

Answer: b

Explanation: Inheritance is way of acquiring attributes and methods of parent class. Java supports hierarchical inheritance directly.

2. Using which of the following, multiple inheritance in Java can be implemented?

- a) Interfaces
- b) Multithreading
- c) Protected methods
- d) Private methods

View Answer

Answer: a

Explanation: Multiple inheritance in java is implemented using interfaces. Multiple interfaces can be implemented by a class.

3. All classes in Java are inherited from which class?

- a) java.lang.class
- b) java.class.inherited
- c) java.class.object
- d) java.lang.Object

View Answer

Answer: d

Explanation: All classes in java are inherited from Object class. Interfaces are not inherited from Object Class.

4. In order to restrict a variable of a class from inheriting to subclass, how variable should be declared?

- a) Protected
- b) Private
- c) Public
- d) Static

View Answer

Answer: b

Explanation: By declaring variable private, the variable will not be available in inherited to subclass.

5. If super class and subclass have same variable name, which keyword should be used to use super class?

- a) super
- b) this
- c) upper
- d) classname

View Answer

Answer: a

Explanation: Super keyword is used to access hidden super class variable in subclass.

6. Static members are not inherited to subclass.

- a) True
- b) False

View Answer

Answer: b

Explanation: Static members are also inherited to subclasses.

7. Which of the following is used for implementing inheritance through interface?

- a) inherited
- b) using
- c) extends
- d) implements

View Answer

Answer: d

Explanation: Interface is implemented using implements keyword. A concrete class must implement all the methods of an interface, else it must be declared abstract.

8. Which of the following is used for implementing inheritance through class?

- a) inherited
- b) using
- c) extends
- d) implements

View Answer

Answer: c

Explanation: Class can be extended using extends keyword. One class can extend only one class. A final class cannot be extended.

9. What would be the result if class extends two interfaces and both have method with same name and signature?

- a) Runtime error
- b) Compile time error
- c) Code runs successfully
- d) First called method is executed successfully

View Answer

Answer: b

Explanation: In case of such conflict, compiler will not be able to link a method call due to ambiguity. It will throw compile time error.

10. Does Java support multiple level inheritance?

- a) True
- b) False

View Answer

Answer: a

Explanation: Java supports multiple level inheritance through implementing multiple interfaces.

### Java Questions & Answers – String Handling Basics

This section of our 1000+ Java MCQs focuses on string handling in Java Programming Language.

1. Which of these class is superclass of String and StringBuffer class?

- a) java.util
- b) java.lang
- c) ArrayList
- d) None of the mentioned

View Answer

Answer: b

Explanation: None.

2. Which of these operators can be used to concatenate two or more String objects?

- a) +
- b) +=
- c) &

d) ||

View Answer

Answer: a

Explanation: Operator + is used to concatenate strings, Example String s = "i " + "like " + "java"; String s contains "I like java".

3. Which of these method of class String is used to obtain length of String object?

a) get()

b) Sizeof()

c) lengthof()

d) length()

View Answer

Answer: d

Explanation: Method length() of string class is used to get the length of the object which invoked method length().

4. Which of these method of class String is used to extract a single character from a String object?

a) CHARAT()

b) chatat()

c) charAt()

d) ChatAt()

View Answer

Answer: c

Explanation: None.

5. Which of these constructors is used to create an empty String object?

a) String()

b) String(void)

c) String(0)

d) None of the mentioned

View Answer

Answer: a

Explanation: None.

6. Which of these is an incorrect statement?

a) String objects are immutable, they cannot be changed

b) String object can point to some other reference of String variable

c) StringBuffer class is used to store string in a buffer for later use

d) None of the mentioned

View Answer

Answer: c

Explanation: StringBuffer class is used to create strings that can be modified after they are created.

7. What is the output of this program?

```
1.    class String_demo
2.    {
3.        public static void main(String args[])
4.        {
5.            char chars[] = {'a', 'b', 'c'};
6.            String s = new String(chars);
7.            System.out.println(s);
8.        }
9.    }
```

a) a

b) b

c) c

d) abc

View Answer

Answer: d

Explanation: String(chars) is a constructor of class string, it initializes string s with the values stored in character array chars, therefore s contains "abc".

output:

```
$ javac String_demo.java
$ java String_demo
abc
```

8. What is the output of this program?

```
1.    class String_demo
2.    {
3.        public static void main(String args[])
4.        {
5.            int ascii[] = { 65, 66, 67, 68};
6.            String s = new String(ascii, 1, 3);
7.            System.out.println(s);
```



```
8.      }
9.      }
```

- a) ABC
- b) BCD
- c) CDA
- d) ABCD

View Answer

Answer: b

Explanation: ascii is an array of integers which contains ascii codes of Characters A, B, C, D. String(ascii, 1, 3) is an constructor which initializes s with Characters corresponding to ascii codes stored in array ascii, starting position being given by 1 & ending position by 3, Thus s stores BCD.  
output:

advertisement

```
$ javac String_demo.java
$ java String_demo
BCD
```

9. What is the output of this program?

```
1.      class String_demo
2.      {
3.          public static void main(String args[])
4.          {
5.              char chars[] = {'a', 'b', 'c'};
6.              String s = new String(chars);
7.              String s1 = "abcd";
8.              int len1 = s1.length();
9.              int len2 = s.length();
10.             System.out.println(len1 + " " + len2);
11.         }
12.     }
```

- a) 3 0
- b) 0 3
- c) 3 4
- d) 4 3

View Answer

Answer: d

Explanation: None.

output:

```
$ javac String_demo.java
$ java String_demo
4 3
```

10. What is the output of this program?

```
1.      class A
2.      {
3.          int i;
4.      int j;
5.          A()
6.          {
7.              i = 1;
8.              j = 2;
9.          }
10.     }
11.     class Output
12.     {
13.         public static void main(String args[])
14.         {
15.             A obj1 = new A();
16.             System.out.print(obj1.toString());
17.         }
18.     }
```

- a) True
- b) False
- c) String associated with obj1
- d) Compilation Error

View Answer

Answer: c

Explanation: toString() is method of class Object, since it is superclass of every class, every object has this method. toString() returns the string

associated with the calling object.

output:

```
$ javac Output.java
$ java Output
A@1cd2e5f
```

### Java Questions & Answers – Character Extraction

This section of our 1000+ Java MCQs focuses on character extraction of Java Programming Language.

1. Which of these method of class String is used to extract more than one character at a time a String object?

- a) getchars()
- b) GetChars()
- c) Getchars()
- d) getChars()

[View Answer](#)

Answer: d

Explanation: None.

2. Which of these methods is an alternative to getChars() that stores the characters in an array of bytes?

- a) getBytes()
- b) GetByte()
- c) giveByte()
- d) Give Bytes()

[View Answer](#)

Answer: a

Explanation: getBytes() stores the character in an array of bytes. It uses default character to byte conversions provided by platform.

3. In below code, what can directly access and change the value of the variable name?

```
1. package test;
2. class Target
3. {
4.     public String name = "hello";
5. }
```

- a) any class
- b) only the Target class
- c) any class in the test package
- d) any class that extends Target

[View Answer](#)

Answer: c

Explanation: Any class in the test package can access and change name.

4. What will be output of the following code?

```
1. public class Boxer1
2. {
3.     Integer i;
4.     int x;
5.     public Boxer1(int y)
6.     {
7.         x = i+y;
8.         System.out.println(x);
9.     }
10.    public static void main(String[] args)
11.    {
12.        new Boxer1 (new Integer(4));
13.    }
14. }
```

- a) The value “4” is printed at the command line
- b) Compilation fails because of an error in line
- c) A NullPointerException occurs at runtime
- d) An IllegalStateException occurs at runtime

[View Answer](#)

Answer: d

Explanation: Because we are performing operation on reference variable which is null.

5. Which of these methods can be used to convert all characters in a String into a character array?

- a) charAt()
- b) both getChars() & charAt()
- c) both toCharArray() & getChars()
- d) all of the mentioned

[View Answer](#)

Answer: c

Explanation: charAt() return one character only not array of character.

6. What is the output of this program?

```

1.      class output
2.      {
3.          public static void main(String args[])
4.          {
5.              String c = "Hello i love java";
6.              int start = 2;
7.              int end = 9;
8.              char s[]=new char[end-start];
9.              c.getChars(start,end,s,0);
10.             System.out.println(s);
11.         }
12.     }

```

a) Hello, i love java

b) i love ja

c) lo i lo

d) llo i l

View Answer

Answer: d

Explanation: getChars(start,end,s,0) returns an array from the string c, starting index of array is pointed by start and ending index is pointed by end. s is the target character array where the new string of letters is going to be stored and the new string will be stored from 0th position in s.

Output:

```

$ javac output.java
$ java output
llo i l

```

7. What is the output of this program?

```

1.      class output
2.      {
3.          public static void main(String args[])
4.          {
5.              String a = "hello i love java";
6.              System.out.println(a.indexOf('i')+" "+a.indexOf('o') +" "+a.lastIndexOf('i')+"
"+a.lastIndexOf('o')));
7.          }
8.      }

```

a) 6 4 6 9

b) 5 4 5 9

c) 7 8 8 9

d) 4 3 6 9

View Answer

Answer: a

Explanation: indexOf('c') and lastIndexOf('c') are pre defined function which are used to get the index of first and last occurrence of the character pointed by c in the given array.

Output:

```

$ javac output.java
$ java output
6 4 6 9

```

8. What is the output of this program?

advertisement

```

1.      class output
2.      {
3.          public static void main(String args[])
4.          {
5.              char c[]={ 'a', 'l', 'b', ' ', 'A', ' ', '0' };
6.              for (int i = 0; i < 5; ++i)
7.              {
8.                  if(Character.isDigit(c[i]))
9.                      System.out.println(c[i]+" is a digit");
10.                 if(Character.isWhitespace(c[i]))
11.                     System.out.println(c[i]+" is a Whitespace character");
12.                 if(Character.isUpperCase(c[i]))
13.                     System.out.println(c[i]+" is an Upper case Letter");
14.                 if(Character.isLowerCase(c[i]))
15.                     System.out.println(c[i]+" is a lower case Letter");

```

```

16.           i=i+3;
17.         }
18.       }
19.     }

```

- a) a is a lower case Letter
- is White space character
- b) b is a lower case Letter
- is White space character
- c) a is a lower case Letter
- A is a upper case Letter
- d) a is a lower case Letter
- 0 is a digit

View Answer

Answer: c

Explanation: Character.isDigit(c[i]),Character.isUpperCase(c[i]),Character.isWhitespace(c[i]) are the function of library java.lang. They are used to find weather the given character is of specified type or not. They return true or false i.e Boolean variable.

Output:

```

$ javac output.java
$ java output
a is a lower case Letter
A is an Upper Case Letter

```

9. What is the output of this program?

```

1.     class String_demo
2.     {
3.         public static void main(String args[])
4.         {
5.             char chars[] = {'a', 'b', 'c'};
6.             String s = new String(chars);
7.             System.out.println(s);
8.         }
9.     }

```

- a) a
- b) b
- c) c
- d) abc

View Answer

Answer: d

Explanation: String(chars) is a constructor of class string, it initializes string s with the values stored in character array chars, therefore s contains "abc".

output:

```

$ javac String_demo.java
$ java String_demo
abc

```

10. What is the output of this program?

```

1.     class output
2.     {
3.         public static void main(String args[])
4.         {
5.             char ch;
6.             ch = "hello".charAt(1);
7.             System.out.println(ch);
8.         }
9.     }

```

- a) h
- b) e
- c) l
- d) o

View Answer

Answer: b

Explanation: "hello" is a String literal, method charAt() returns the character specified at the index position. Character at index position 1 is e of hello, hence ch contains e.

output:

```

$ javac output.java
$ java output
e

```

### Java Questions & Answers – String Comparison

This section of our 1000+ Java MCQs focuses on String comparison in Java Programming Language.

1. Which of these method of class String is used to compare two String objects for their equality?

- a) equals()
- b) Equals()
- c) isequal()
- d) Isequal()

View Answer

Answer: a

Explanation: None.

2. Which of these methods is used to compare a specific region inside a string with another specific region in another string?

- a) regionMatch()
- b) match()
- c) RegionMatches()
- d) regionMatches()

View Answer

Answer: d

Explanation: None.

3. Which of these method of class String is used to check whether a given object starts with a particular string literal?

- a) startsWith()
- b) endsWith()
- c) Starts()
- d) ends()

View Answer

Answer: a

Explanation: Method startsWith() of string class is used to check whether the String in question starts with a specified string. It is specialized form of method regionMatches().

4. What is the value returned by function compareTo() if the invoking string is less than the string compared?

- a) zero
- b) value less than zero
- c) value greater than zero
- d) none of the mentioned

View Answer

Answer: b

Explanation: compareTo() function returns zero when both the strings are equal, it returns a value less than zero if the invoking string is less than the other string being compared and value greater than zero when invoking string is greater than the string compared to.

5. Which of these data type value is returned by equals() method of String class?

- a) char
- b) int
- c) boolean
- d) all of the mentioned

View Answer

Answer: c

Explanation: equals() method of string class returns boolean value true if both the string are equal and false if they are unequal.

6. What is the output of this program?

```

1.      class output
2.      {
3.          public static void main(String args[])
4.          {
5.              String c = "Hello i love java";
6.              boolean var;
7.              var = c.startsWith("hello");
8.              System.out.println(var);
9.          }
10.     }
```

- a) true
- b) false
- c) 0
- d) 1

View Answer

Answer: b

Explanation: startsWith() method is case sensitive “hello” and “Hello” are treated differently, hence false is stored in var.

Output:

```

$ javac output.java
$ java output
false
```

7. What is the output of this program?

```
1. class output
2. {
3.     public static void main(String args[])
4.     {
5.         String s1 = "Hello i love java";
6.         String s2 = new String(s1);
7.         System.out.println((s1 == s2) + " " + s1.equals(s2));
8.     }
9. }
```

- a) true true
- b) false false
- c) true false
- d) false true

View Answer

Answer: d

Explanation: The == operator compares two object references to see whether they refer to the same instance, where as equals() compares the content of the two objects.

Output:

advertisement

```
$ javac output.java
$ java output
false true
```

8. What is the output of this program?

```
1. class output
2. {
3.     public static void main(String args[])
4.     {
5.         String s1 = "Hello";
6.         String s2 = new String(s1);
7.         String s3 = "HELLO";
8.         System.out.println(s1.equals(s2) + " " + s2.equals(s3));
9.     }
10. }
```

- a) true true
- b) false false
- c) true false
- d) false true

View Answer

Answer: c

Explanation: None.

Output:

```
$ javac output.java
$ java output
true false
```

9. In the below code, which code fragment should be inserted at line 3 so that the output will be: "123abc 123abc"?

```
1 StringBuilder sb1 = new StringBuilder("123");
2 String s1 = "123";
3 // insert code here
4 System.out.println(sb1 + " " + s1);
```

- a) sb1.append("abc"); s1.append("abc");
- b) sb1.append("abc"); s1.concat("abc");
- c) sb1.concat("abc"); s1.append("abc");
- d) sb1.append("abc"); s1 = s1.concat("abc");

View Answer

Answer: d

Explanation: append() is stringbuffer method and concat is String class method.

append() is stringbuffer method and concat is String class method.

10. What is the output of this program?

```
1. class output
2. {
3.     public static void main(String args[])
4.     {
5.         String chars[] = {"a", "b", "c", "a", "c"};
6.         for (int i = 0; i < chars.length; ++i)
7.             for (int j = i + 1; j < chars.length; ++j)
```

```

8.          if(chars[i].compareTo(chars[j]) == 0)
9.          System.out.print(chars[j]);
10.         }
11.     }

```

- a) ab
- b) bc
- c) ca
- d) ac

View Answer

Answer: d

Explanation: compareTo() function returns zero when both the strings are equal, it returns a value less than zero if the invoking string is less than the other string being compared and value greater than zero when invoking string is greater than the string compared to.

output:

```

$ javac output.java
$ java output
ac

```

### Java Questions & Answers – Searching & Modifying a String

This section of our 1000+ Java MCQs focuses on searching and modifying a string of Java Programming Language.

1. Which of these method of class String is used to extract a substring from a String object?

- a) substring()
- b) Substring()
- c) SubString()
- d) None of the mentioned

View Answer

Answer: a

Explanation: None.

2. What will s2 contain after following lines of code?

```

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

```

- a) one
- b) two
- c) onetwo
- d) twoone

View Answer

Answer: c

Explanation: Two strings can be concatenated by using concat() method.

3. Which of these method of class String is used to remove leading and trailing whitespaces?

- a) startsWith()
- b) trim()
- c) Trim()
- d) doTrim()

View Answer

Answer: b

Explanation: None.

4. What is the value returned by function compareTo() if the invoking string is greater than the string compared?

- a) zero
- b) value less than zero
- c) value greater than zero
- d) none of the mentioned

View Answer

Answer: c

Explanation:

```

if (s1 == s2) then 0, if(s1 > s2) > 0, if (s1 < s2) then < 0.

```

5. Which of the following statement is correct?

- a) replace() method replaces all occurrences of one character in invoking string with another character
- b) replace() method replaces only first occurrences of a character in invoking string with another character
- c) replace() method replaces all the characters in invoking string with another character
- d) replace() replace() method replaces last occurrence of a character in invoking string with another character

View Answer

Answer: a

Explanation: replace() method replaces all occurrences of one character in invoking string with another character.

6. What is the output of this program?

```

1.     class output
2.     {
3.         public static void main(String args[])

```

```

4.      {
5.          String c = "  Hello World  ";
6.          String s = c.trim();
7.          System.out.println("\""+s+"\"");
8.      }
9.  }

```

- a) ""Hello World""
- b) ""Hello World"
- c) "Hello World"
- d) Hello world

View Answer

Answer: c

Explanation: trim() method is used to remove leading and trailing whitespaces in a string.

Output:

```

$ javac output.java
$ java output
"Hello World"

```

7. What is the output of this program?

```

1.      class output
2.      {
3.          public static void main(String args[])
4.          {
5.              String s1 = "one";
6.              String s2 = s1 + " two";
7.              System.out.println(s2);
8.          }
9.      }

```

- a) one
- b) two
- c) one two
- d) compilation error

View Answer

Answer: c

Explanation: None.

Output:

```

$ javac output.java
$ java output
one two

```

8. What is the output of this program?

advertisement

```

1.      class output
2.      {
3.          public static void main(String args[])
4.          {
5.              String s1 = "Hello";
6.              String s2 = s1.replace('l','w');
7.              System.out.println(s2);
8.          }
9.      }

```

- a) hello
- b) helwo
- c) hewlo
- d) hewwo

View Answer

Answer: d

Explanation: replace() method replaces all occurrences of one character in invoking string with another character. s1.replace('l','w') replaces every occurrence of 'l' in hello by 'w', giving hewwo.

Output:

```

$ javac output.java
$ java output
hewwo

```

9. What is the output of this program?

```

1.      class output
2.      {
3.          public static void main(String args[])
4.          {

```



```

5.      String s1 = "Hello World";
6.      String s2 = s1.substring(0 , 4);
7.      System.out.println(s2);
8.      }
9.      }

```

- a) Hell
- b) Hello
- c) Worl
- d) World

View Answer

Answer: a

Explanation: substring(0,4) returns the character from 0 th position to 3 rd position.

output:

```
$ javac output.java
```

```
$ java output
```

Hell

10. What is the output of this program?

```

1.      class output
2.      {
3.          public static void main(String args[])
4.          {
5.              String s = "Hello World";
6.              int i = s.indexOf('o');
7.              int j = s.lastIndexOf('l');
8.              System.out.print(i + " " + j);
9.          }
10.     }

```

- a) 4 8
- b) 5 9
- c) 4 9
- d) 5 8

View Answer

Answer: c

Explanation: indexOf() method returns the index of first occurrence of the character where as lastIndexOf() returns the index of last occurrence of the character.

output:

```
$ javac output.java
```

```
$ java output
```

4 9

### Java Questions & Answers – Java.lang Introduction

This section of our 1000+ Java MCQs focuses on java.lang library of Java Programming Language.

1. Which of these classes is not included in java.lang?

- a) Byte
- b) Integer
- c) Array
- d) Class

View Answer

Answer: c

Explanation: Array class is a member of java.util.

2. Which of these is a process of converting a simple data type into a class?

- a) type wrapping
- b) type conversion
- c) type casting
- d) none of the Mentioned.

View Answer

Answer: a

Explanation: None.

3. Which of these is a super class of wrappers Double & Integer?

- a) Long
- b) Digits
- c) Float
- d) Number

View Answer

Answer: d

Explanation: Number is an abstract class containing subclasses Double, Float, Byte, Short, Integer and Long.

4. Which of these is wrapper for simple data type float?

- a) float
  - b) double
  - c) Float
  - d) Double
- View Answer

Answer: c

Explanation: None.

5. Which of the following is method of wrapper Float for converting the value of an object into byte?

- a) bytevalue()
  - b) byte byteValue()
  - c) Bytevalue()
  - d) Byte Bytevalue().
- View Answer

Answer: b

Explanation: None.

6. Which of these methods is used to check for infinitely large and small values?

- a) isInfinite()
  - b) isNaN()
  - c) Isinfinite()
  - d) IsNaN()
- View Answer

Answer: a

Explanation: isinfinite() method returns true is the value being tested is infinitely large or small in magnitude.

7. Which of the following package stores all the simple data types in java?

- a) lang
  - b) java
  - c) util
  - d) java.packages
- View Answer

Answer: a

Explanation: None.

8. What is the output of this program?

```

1.    class isinfinite_output
2.    {
3.        public static void main(String args[])
4.        {
5.            Double d = new Double(1 / 0.);
6.            boolean x = d.isInfinite();
7.            System.out.print(x);
8.        }
9.    }
```

- a) 0
  - b) 1
  - c) true
  - d) false
- View Answer

Answer: c

Explanation: isInfinite() method returns true is the value being tested is infinitely large or small in magnitude. 1/0. is infinitely large in magnitude hence true is stored in x.

Output:

```

$ javac isinfinite_output.java
$ java isinfinite_output
true
```

9. What is the output of this program?

advertisement

```

1.    class isNaN_output
2.    {
3.        public static void main(String args[])
4.        {
5.            Double d = new Double(1 / 0.);
6.            boolean x = d.isNaN();
7.            System.out.print(x);
```

```
8.      }
9.      }
```

- a) 0
- b) 1
- c) true
- d) false

View Answer

Answer: d

Explanation: isNaN() method returns true if the value being tested is a number. 1/0. is infinitely large in magnitude, which cannot be defined as a number hence false is stored in x.

Output:

```
$ javac isNaN_output.java
$ java isNaN_output
false
```

10. What is the output of this program?

```
1.      class binary
2.      {
3.          public static void main(String args[])
4.          {
5.              int num = 17;
6.              System.out.print(Integer.toBinaryString(num));
7.          }
8.      }
```

- a) 1001
- b) 10011
- c) 11011
- d) 10001

View Answer

Answer: d

Explanation: None.

output:

```
$ javac binary.java
$ java binary
10001
```

### Java Questions & Answers – Java.lang – Integer, Long & Character Wrappers

This section of our 1000+ Java MCQs focuses on Integer, Long & Character wrappers of Java Programming Language.

1. Which of these is a wrapper for data type int?

- a) Integer
- b) Long
- c) Byte
- d) Double

View Answer

Answer: a

Explanation: None.

2. Which of the following methods is a method of wrapper Integer for obtaining hash code for the invoking object?

- a) int hash()
- b) int hashCode()
- c) int hashCode()
- d) Integer hashCode()

View Answer

Answer: c

Explanation: None.

3. Which of these is a super class of wrappers Long, Character & Integer?

- a) Long
- b) Digits
- c) Float
- d) Number

View Answer

Answer: d

Explanation: Number is an abstract class containing subclasses Double, Float, Byte, Short, Integer and Long.

4. Which of these is wrapper for simple data type char?

- a) Float
- b) Character
- c) String

d) Integer

View Answer

Answer: b

Explanation: None.

5. Which of the following is method of wrapper Integer for converting the value of an object into int?

a) bytevalue()

b) int intValue();

c) Bytevalue()

d) Byte Bytevalue()

View Answer

Answer: b

Explanation: None.

6. Which of these methods is used to obtain value of invoking object as a long?

a) long value()

b) long longValue()

c) Long longvalue()

d) Long Longvalue()

View Answer

Answer: b

Explanation: long longValue() is used to obtain value of invoking object as a long.

7. What is the output of this program?

```

1.      class Output
2.      {
3.          public static void main(String args[])
4.          {
5.              char a[] = {'a', '5', 'A', ' '};
6.              System.out.print(Character.isDigit(a[0]) + " ");
7.              System.out.print(Character.isWhitespace(a[3]) + " ");
8.              System.out.print(Character.isUpperCase(a[2]));
9.          }
10.     }
```

a) true false true

b) false true true

c) true true false

d) false false false

View Answer

Answer: b

Explanation: Character.isDigit(a[0]) checks for a[0], whether it is a digit or not, since a[0] i.e 'a' is a character false is returned. a[3] is a whitespace hence Character.isWhitespace(a[3]) returns a true. a[2] is an uppercase letter i.e 'A' hence Character.isUpperCase(a[2]) returns true.

Output:

```

$ javac Output.java
$ java Output
false true true
```

8. What is the output of this program?

```

1.      class Output
2.      {
3.          public static void main(String args[])
4.          {
5.              Integer i = new Integer(257);
6.              byte x = i.byteValue();
7.              System.out.print(x);
8.          }
9.      }
```

a) 0

b) 1

c) 256

d) 257

View Answer

Answer: b

Explanation: i.byteValue() method returns the value of wrapper i as a byte value. i is 257, range of byte is 256 therefore i value exceeds byte range by 1 hence 1 is returned and stored in x.

Output:

```

$ javac Output.java
$ java Output
1
```

advertisement

9. What is the output of this program?

```
1.    class Output
2.    {
3.        public static void main(String args[])
4.        {
5.            Integer i = new Integer(257);
6.            float x = i.floatValue();
7.            System.out.print(x);
8.        }
9.    }
```

- a) 0
- b) 1
- c) 257
- d) 257.0

View Answer

Answer: d

Explanation: None.

Output:

```
$ javac Output.java
$ java Output
257.0
```

10. What is the output of this program?

```
1.    class Output
2.    {
3.        public static void main(String args[])
4.        {
5.            Long i = new Long(256);
6.            System.out.print(i.hashCode());
7.        }
8.    }
```

- a) 256
- b) 256.0
- c) 256.00
- d) 257.00

View Answer

Answer: a

Explanation: None.

Output:

```
$ javac Output.java
$ java Output
256
```

#### Java Questions & Answers – Java.lang – Void, Process & System Class

This section of our 1000+ Java MCQs focuses on Void, Process & System classes of Java Programming Language.

1. Which of these class have only one field 'TYPE'?

- a) Void
- b) Process
- c) System
- d) Runtime

View Answer

Answer: a

Explanation: The Void class has one field, TYPE, which holds a reference to the Class object for the type void.

2. Which of the following method of Process class can terminate a process?

- a) void kill()
- b) void destroy()
- c) void terminate()
- d) void exit()

View Answer

Answer: b

Explanation: Kills the subprocess. The subprocess represented by this Process object is forcibly terminated.

3. Standard output variable 'out' is defined in which class?

- a) Void
- b) Process
- c) Runtime
- d) System

View Answer

Answer: d

Explanation: Standard output variable 'out' is defined in System class. out is usually used in print statement i.e System.out.print().

4. Which of these class can encapsulate an entire executing program?

- a) Void
- b) Process
- c) Runtime
- d) System

View Answer

Answer: b

Explanation: None.

5. Which of the following is method of System class is used to find how long a program takes to execute?

- a) currentTime()
- b) currentTime()
- c) currentTimeMillis()
- d) currenttimeMillis()

View Answer

Answer: c

Explanation: None.

6. Which of these class holds a collection of static methods and variables?

- a) Void
- b) Process
- c) Runtime
- d) System

View Answer

Answer: d

Explanation: System class holds a collection of static methods and variables. The standard input, output and error output of java runtime are stored in the in, out and err variables of System class.

7. What is the output of this program?

```

1.      class Output
2.      {
3.          public static void main(String args[])
4.          {
5.              long start, end;
6.              start = System.currentTimeMillis();
7.              for (int i = 0; i < 10000000; i++);
8.              end = System.currentTimeMillis();
9.              System.out.print(end - start);
10.         }
11.     }
```

- a) 0
- b) 1
- c) 1000
- d) System Dependent

View Answer

Answer: d

Explanation: end time is the time taken by loop to execute it can be any non-zero value depending on the System.

Output:

```

$ javac Output.java
$ java Output
78
```

8. What is the output of this program?

```

1.      class Output
2.      {
3.          public static void main(String args[])
4.          {
5.              byte a[] = { 65, 66, 67, 68, 69, 70 };
6.              byte b[] = { 71, 72, 73, 74, 75, 76 };
7.              System.arraycopy(a , 0, b, 0, a.length);
8.              System.out.print(new String(a) + " " + new String(b));
9.          }
10.     }
```

- a) ABCDEF ABCDEF
- b) ABCDEF GHIJKL
- c) GHIJKL ABCDEF
- d) GHIJKL GHIJKL

View Answer

Answer: a

Explanation: System.arraycopy() is a method of class System which is used to copy a string into another string.

Output:

advertisement

```
$ javac Output.java
$ java Output
ABCDEF ABCDEF
```

9. What is the output of this program?

```
1.      class Output
2.      {
3.          public static void main(String args[])
4.          {
5.              byte a[] = { 65, 66, 67, 68, 69, 70 };
6.              byte b[] = { 71, 72, 73, 74, 75, 76 };
7.              System.arraycopy(a, 2, b, 1, a.length-2);
8.              System.out.print(new String(a) + " " + new String(b));
9.          }
10.     }
```

- a) ABCDEF GHIJKL
- b) ABCDEF GCDEFL
- c) GHIJKL ABCDEF
- d) GCDEFL GHIJKL

View Answer

Answer: b

Explanation: None.

Output:

```
$ javac Output.java
$ java Output
ABCDEF GCDEFL
```

10. What is the output of this program?

```
1.      class Output
2.      {
3.          public static void main(String args[])
4.          {
5.              byte a[] = { 65, 66, 67, 68, 69, 70 };
6.              byte b[] = { 71, 72, 73, 74, 75, 76 };
7.              System.arraycopy(a, 1, b, 3, 0);
8.              System.out.print(new String(a) + " " + new String(b));
9.          }
10.     }
```

- a) ABCDEF GHIJKL
- b) ABCDEF GCDEFL
- c) GHIJKL ABCDEF
- d) GCDEFL GHIJKL

View Answer

Answer: a

Explanation: Since last parameter of System.arraycopy(a,1,b,3,0) is 0 nothing is copied from array a to array b, hence b remains as it is.

Output:

```
$ javac Output.java
$ java Output
ABCDEF GHIJKL
```

### Java Questions & Answers – Java.lang – Object & Math Class

This section of our 1000+ Java MCQs focuses on Object & Math classes of Java Programming Language.

1. Which of these class is superclass of all other classes?

- a) Math
- b) Process
- c) System
- d) Object

View Answer

Answer: d

Explanation: The object class class is superclass of all other classes.

2. Which of these method of Object class can generate duplicate copy of the object on which it is called?

- a) clone()
- b) copy()
- c) duplicate()

d) dito()

View Answer

Answer: a

Explanation: None.

3. What is the value of double consonant 'E' defined in Math class?

- a) approximately 3
- b) approximately 3.14
- c) approximately 2.72
- d) approximately 0

View Answer

Answer: c

Explanation: None.

4. Which of these method is a rounding function of Math class?

- a) max()
- b) min()
- c) abs()
- d) all of the mentioned

View Answer

Answer: d

Explanation: max(), min() and abs() are all rounding functions.

5. Which of these class contains only floating point functions?

- a) Math
- b) Process
- c) System
- d) Object

View Answer

Answer: a

Explanation: Math class contains all the floating point functions that are used for geometry, trigonometry, as well as several general purpose methods. Example : sin(), cos(), exp(), sqrt() etc.

6. Which of these class encapsulate the run time state of an object or an interface?

- a) Class
- b) Object
- c) Runtime
- d) System

View Answer

Answer: a

Explanation: None.

7. What is the value of "d" after this line of code has been executed?

```
double d = Math.round ( 2.5 + Math.random() );
```

- a) 2
- b) 3
- c) 4
- d) 2.5

View Answer

Answer: b

Explanation: The Math.random() method returns a number greater than or equal to 0 and less than 1. so 2.5 will be greater than or equal to 2.5 and less than 3.5, we can be sure that Math.round() will round that number to 3.

8. What is the output of this program?

```
1.      class Output
2.      {
3.          public static void main(String args[])
4.          {
5.              int x = 3.14;
6.              int y = (int) Math.abs(x);
7.              System.out.print(y);
8.          }
9.      }
```

- a) 0
- b) 3
- c) 3.0
- d) 3.1

View Answer

Answer: b

Explanation: None.

Output:

advertisement



```
$ javac Output.java
$ java Output
3
```

9. What is the output of this program?

```
1.      class Output
2.      {
3.          public static void main(String args[])
4.          {
5.              double x = 3.1;
6.              double y = 4.5;
7.              double z = Math.max( x, y );
8.              System.out.print(z);
9.          }
10.     }
```

- a) true
- b) false
- c) 3.1
- d) 4.5

View Answer

Answer: d

Explanation: None.

Output:

```
$ javac Output.java
$ java Output
4.5
```

10. What is the output of this program?

```
1.      class Output
2.      {
3.          public static void main(String args[])
4.          {
5.              double x = 2.0;
6.              double y = 3.0;
7.              double z = Math.pow( x, y );
8.              System.out.print(z);
9.          }
10.     }
```

- a) 2.0
- b) 4.0
- c) 8.0
- d) 9.0

View Answer

Answer: c

Explanation: Math.pow(x, y) methods returns value of y to the power x, i.e  $x^y$ ,  $2.0^3.0 = 8.0$ .

Output:

```
$ javac Output.java
$ java Output
8.0
```

### Java Questions & Answers – Java.lang – System Class Advance

This set of Java Multiple Choice Questions & Answers (MCQs) focuses on “System Class Advance”.

1. Which of these exceptions is thrown by methods of System class?

- a) IOException
- b) SystemException
- c) SecurityException
- d) InputOutputException

View Answer

Answer: c

Explanation: System class methods throw SecurityException.

2. Which of these methods initiates garbage collection?

- a) gc()
- b) garbage()
- c) garbagecollection()
- d) Systemgarbagecollection()

View Answer

Answer: a

Explanation: None.

3. Which of these methods loads the specified dynamic library?

- a) load()
- b) library()
- c) loadlib()
- d) loadlibrary()

View Answer

Answer: a

Explanation: load() methods loads the dynamic library whose name is specified.

4. Which of these method can set the out stream to OutputStream?

- a) setStream()
- b) setostream()
- c) setOut()
- d) streamtoOstream()

View Answer

Answer: c

Explanation: None.

5. Which of these values are returns under the case of normal termination of a program?

- a) 0
- b) 1
- c) 2
- d) 3

View Answer

Answer: a

Explanation: None.

6. What is the output of this program?

```

1.      import java.lang.System;
2.      class Output
3.      {
4.          public static void main(String args[])
5.          {
6.              long start, end;
7.              start = System.currentTimeMillis();
8.              for (int i = 0; i < 100000000; i++);
9.              end = System.currentTimeMillis();
10.             System.out.print(end - start);
11.         }
12.     }
```

- a) 0
- b) 1
- c) 1000
- d) System Dependent

View Answer

Answer: d

Explanation: End time is the time taken by loop to execute it can be any non-zero value depending on the System.

Output:

```

$ javac Output.java
$ java Output
78
```

7. What is the output of this program?

```

1.      import java.lang.System;
2.      class Output
3.      {
4.          public static void main(String args[])
5.          {
6.              byte a[] = { 65, 66, 67, 68, 69, 70 };
7.              byte b[] = { 71, 72, 73, 74, 75, 76 };
8.              System.arraycopy(a, 0, b, 0, a.length);
9.              System.out.print(new String(a) + " " + new String(b));
10.         }
11.     }
```

- a) ABCDEF ABCDEF
- b) ABCDEF GHIJKL
- c) GHIJKL ABCDEF
- d) GHIJKL GHIJKL

View Answer

Answer: a

Explanation: System.arraycopy() is a method of class System which is used to copy a string into another string.

Output:

```
$ javac Output.java
$ java Output
ABCDEF ABCDEF
```

8. What is the output of this program?

```
1. import java.lang.System;
2. class Output
3. {
4.     public static void main(String args[])
5.     {
6.         byte a[] = { 65, 66, 67, 68, 69, 70 };
7.         byte b[] = { 71, 72, 73, 74, 75, 76 };
8.         System.arraycopy(a, 0, b, 3, a.length - 3);
9.         System.out.print(new String(a) + " " + new String(b));
10.    }
11. }
```

- a) ABCDEF ABCDEF
- b) ABCDEF GHIJKL
- c) ABCDEF GHIABC
- d) GHIJKL GHIJKL

View Answer

Answer: c

Explanation: System.arraycopy() is a method of class System which is used to copy a string into another string.

Output:

```
$ javac Output.java
$ java Output
ABCDEF GHIABC
```

9. What is the output of this program?

advertisement

```
1. import java.lang.System;
2. class Output
3. {
4.     public static void main(String args[])
5.     {
6.         byte a[] = { 65, 66, 67, 68, 69, 70 };
7.         byte b[] = { 71, 72, 73, 74, 75, 76 };
8.         System.arraycopy(a, 2, b, 3, a.length - 4);
9.         System.out.print(new String(a) + " " + new String(b));
10.    }
11. }
```

- a) ABCDEF ABCDEF
- b) ABCDEF GHIJKL
- c) ABCDEF GHIABC
- d) ABCDEF GHICDL

View Answer

Answer: d

Explanation: System.arraycopy() is a method of class System which is used to copy a string into another string.

Output:

```
$ javac Output.java
$ java Output
ABCDEF GHICDL
```

10. What value will this program return to Java run-time system?

```
1. import java.lang.System;
2. class Output
3. {
4.     public static void main(String args[])
5.     {
6.         System.exit(5);
7.     }
8. }
```

- a) 0
- b) 1
- c) 4

d) 5

[View Answer](#)

Answer: d

Explanation: None

### Java Questions & Answers – Java.lang – Double & Float Wrappers

This set of Java Multiple Choice Questions & Answers (MCQs) focuses on “Double & Float Wrappers”.

1. Which of these is a super class of wrappers Double and Float?

- a) Long
- b) Digits
- c) Float
- d) Number

[View Answer](#)

Answer: d

Explanation: Number is an abstract class containing subclasses Double, Float, Byte, Short, Integer and Long.

2. Which of the following methods return the value as a double?

- a) doubleValue()
- b) converDouble()
- c) getDouble()
- d) getDoubleValue()

[View Answer](#)

Answer: a

Explanation: None.

3. Which of these methods can be used to check whether the given value is a number or not?

- a) isNaN()
- b) isNumber()
- c) checkNaN()
- d) checkNumber()

[View Answer](#)

Answer: a

Explanation: isNaN() methods returns true if num specified is not a number, otherwise it returns false.

4. Which of these method of Double wrapper can be used to check whether a given value is infinite or not?

- a) Infinite()
- b) isInfinite()
- c) checkInfinite()
- d) None of the mentioned

[View Answer](#)

Answer: b

Explanation: isInfinite() methods returns true if specified value is an infinite value otherwise it returns false.

5. Which of these exceptions is thrown by compareTo() method defined in double wrapper?

- a) IOException
- b) SystemException
- c) CastException
- d) ClassCastException

[View Answer](#)

Answer: d

Explanation: compareTo() methods compare the specified object to be double, if it is not then ClassCastException is thrown.

6. What is the output of this program?

```

1.      class Output
2.      {
3.          public static void main(String args[])
4.          {
5.              Double i = new Double(257.5);
6.              boolean x = i.isNaN();
7.              System.out.print(x);
8.          }
9.      }
```

- a) true
- b) false
- c) 0
- d) 1

[View Answer](#)

Answer: b

Explanation: isNaN() method returns true if i is not a number and false when i is a number. Here false is returned because i is a number i.e

257.5.

Output:

```
$ javac Output.java
$ java Output
false
```

7. What is the output of this program?

```
1.      class Output
2.      {
3.          public static void main(String args[])
4.          {
5.              Integer i = new Integer(257);
6.              byte x = i.byteValue();
7.              System.out.print(x);
8.          }
9.      }
```

- a) 0
- b) 1
- c) 256
- d) 257

View Answer

Answer: b

Explanation: i.byteValue() method returns the value of wrapper i as a byte value. i is 257, range of byte is 256 therefore i value exceeds byte range by 1 hence 1 is returned and stored in x.

Output:

```
$ javac Output.java
$ java Output
1
```

8. What is the output of this program?

```
1.      class Output
2.      {
3.          public static void main(String args[])
4.          {
5.              Double i = new Double(257.578);
6.              int x = i.intValue();
7.              System.out.print(x);
8.          }
9.      }
```

- a) 0
- b) 1
- c) 256
- d) 257

View Answer

Answer: d

Explanation: i.intValue() method returns the value of wrapper i as a Integer. i is 257.578 is double number when converted to an integer data type its value is 257.

Output:

```
$ javac Output.java
$ java Output
257
```

9. What is the output of this program?

advertisement

```
1.      class Output
2.      {
3.          public static void main(String args[])
4.          {
5.              Double i = new Double(257.578123456789);
6.              float x = i.floatValue();
7.              System.out.print(x);
8.          }
9.      }
```

- a) 0
- b) 257.0
- c) 257.57812
- d) 257.578123456789

View Answer

Answer: c

Explanation: floatValue() converts the value of wrapper i into float, since float can measure till 5 places after decimal hence 257.57812 is stored in floating point variable x.

Output:

```
$ javac Output.java
$ java Output
257.57812
```

10. What is the output of this program?

```
1. class Output
2. {
3.     public static void main(String args[])
4.     {
5.         Double y = new Double(257.57812);
6.         Double i = new Double(257.578123456789);
7.         try
8.         {
9.             int x = i.compareTo(y);
10.            System.out.print(x);
11.        }
12.        catch(ClassCastException e)
13.        {
14.            System.out.print("Exception");
15.        }
16.    }
17. }
```

- a) 0
- b) 1
- c) Exception
- d) None of the mentioned

View Answer

Answer: b

Explanation: i.compareTo() methods two double values, if they are equal then 0 is returned and if not equal then 1 is returned, here 257.57812 and 257.578123456789 are not equal hence 1 is returned and stored in x.

Output:

```
$ javac Output.java
$ java Output
1
```

## Java Questions & Answers – Java.lang – Void, Process & System Class

This section of our 1000+ Java MCQs focuses on Void, Process & System classes of Java Programming Language.

1. Which of these class have only one field 'TYPE'?

- a) Void
- b) Process
- c) System
- d) Runtime

View Answer

Answer: a

Explanation: The Void class has one field, TYPE, which holds a reference to the Class object for the type void.

2. Which of the following method of Process class can terminate a process?

- a) void kill()
- b) void destroy()
- c) void terminate()
- d) void exit()

View Answer

Answer: b

Explanation: Kills the subprocess. The subprocess represented by this Process object is forcibly terminated.

3. Standard output variable 'out' is defined in which class?

- a) Void
- b) Process
- c) Runtime
- d) System

View Answer

Answer: d

Explanation: Standard output variable 'out' is defined in System class. out is usually used in print statement i.e System.out.print().

4. Which of these class can encapsulate an entire executing program?

- a) Void
- b) Process
- c) Runtime
- d) System

View Answer

Answer: b

Explanation: None.

5. Which of the following is method of System class is used to find how long a program takes to execute?

- a) currenttime()
- b) currentTime()
- c) currentTimeMillis()
- d) currenttimeMillis()

View Answer

Answer: c

Explanation: None.

6. Which of these class holds a collection of static methods and variables?

- a) Void
- b) Process
- c) Runtime
- d) System

View Answer

Answer: d

Explanation: System class holds a collection of static methods and variables. The standard input, output and error output of java runtime are stored in the in, out and err variables of System class.

7. What is the output of this program?

```
class Output
{
    public static void main(String args[])
    {
        long start, end;

        start = System.currentTimeMillis();

        for (int i = 0; i < 10000000; i++);
    }
}
```

```

        end = System.currentTimeMillis();

        System.out.print(end - start);

    }

}

```

- a) 0
- b) 1
- c) 1000
- d) System Dependent

View Answer

Answer: d

Explanation: end time is the time taken by loop to execute it can be any non zero value depending on the System.

Output:

```

$ javac Output.java
$ java Output
78

```

8. What is the output of this program?

```

class Output

{

    public static void main(String args[])

    {

        byte a[] = { 65, 66, 67, 68, 69, 70 };

        byte b[] = { 71, 72, 73, 74, 75, 76 };

        System.arraycopy(a , 0, b, 0, a.length);

        System.out.print(new String(a) + " " + new String(b));

    }

}

```

- a) ABCDEF ABCDEF
- b) ABCDEF GHIJKL
- c) GHIJKL ABCDEF
- d) GHIJKL GHIJKL

View Answer

Answer: a

Explanation: System.arraycopy() is a method of class System which is used to copy a string into another string.

Output:

advertisement



```
$ javac Output.java
$ java Output
ABCDEF ABCDEF
```

9. What is the output of this program?

```
class Output

{

    public static void main(String args[])

    {

        byte a[] = { 65, 66, 67, 68, 69, 70 };

        byte b[] = { 71, 72, 73, 74, 75, 76 };

        System.arraycopy(a, 2, b, 1, a.length-2);

        System.out.print(new String(a) + " " + new String(b));

    }

}
```

- a) ABCDEF GHIJKL
- b) ABCDEF GCDEFL
- c) GHIJKL ABCDEF
- d) GCDEFL GHIJKL

View Answer

Answer: b

Explanation: None.

Output:

```
$ javac Output.java
$ java Output
ABCDEF GCDEFL
```

10. What is the output of this program?

```
class Output

{

    public static void main(String args[])

    {

        byte a[] = { 65, 66, 67, 68, 69, 70 };

        byte b[] = { 71, 72, 73, 74, 75, 76 };

        System.arraycopy(a, 1, b, 3, 0);
```

```
System.out.print(new String(a) + " " + new String(b));
```

```
}
```

```
}
```

- a) ABCDEF GHIJKL
- b) ABCDEF GCDEFL
- c) GHIJKL ABCDEF
- d) GCDEFL GHIJKL

View Answer

Answer: a

Explanation: Since last parameter of System.arraycopy(a,1,b,3,0) is 0 nothing is copied from array a to array b, hence b remains as it is.

Output:

```
$ javac Output.java
```

```
$ java Output
```

```
ABCDEF GHIJKL
```

#### Java Questions & Answers – Java.lang – Object & Math Class

This section of our 1000+ Java MCQs focuses on Object & Math classes of Java Programming Language.

1. Which of these class is superclass of all other classes?

- a) Math
- b) Process
- c) System
- d) Object

View Answer

Answer: d

Explanation: The object class class is superclass of all other classes.

2. Which of these method of Object class can generate duplicate copy of the object on which it is called?

- a) clone()
- b) copy()
- c) duplicate()
- d) dito()

View Answer

Answer: a

Explanation: None.

3. What is the value of double constant 'E' defined in Math class?

- a) approximately 3
- b) approximately 3.14
- c) approximately 2.72
- d) approximately 0

View Answer

Answer: c

Explanation: None.

4. Which of these method is a rounding function of Math class?

- a) max()

Collected by Md. Jubayir Hossain

(Just pray for me to Allah)

- b) min()
- c) abs()
- d) all of the mentioned

View Answer

Answer: d

Explanation: max(), min() and abs() are all rounding functions.

5. Which of these class contains only floating point functions?

- a) Math
- b) Process
- c) System
- d) Object

View Answer

Answer: a

Explanation: Math class contains all the floating point functions that are used for geometry, trigonometry, as well as several general purpose methods. Example : sin(), cos(), exp(), sqrt() etc.

6. Which of these class encapsulate the run time state of an object or an interface?

- a) Class
- b) Object
- c) Runtime
- d) System

View Answer

Answer: a

Explanation: None.

7. What is the value of "d" after this line of code has been executed?

```
double d = Math.round ( 2.5 + Math.random() );
```

- a) 2
- b) 3
- c) 4
- d) 2.5

View Answer

Answer: b

Explanation: The Math.random() method returns a number greater than or equal to 0 and less than 1. so 2.5 will be greater than or equal to 2.5 and less than 3.5, we can be sure that Math.round() will round that number to 3.

8. What is the output of this program?

```
class Output
{
    public static void main(String args[])
    {
        int x = 3.14;

        int y = (int) Math.abs(x);

        System.out.print(y);
    }
}
```

```
}
}
```

- a) 0
- b) 3
- c) 3.0
- d) 3.1

View Answer

Answer: b

Explanation: None.

Output:

advertisement

```
$ javac Output.java
$ java Output
3
```

9. What is the output of this program?

```
class Output
{
    public static void main(String args[])
    {
        double x = 3.1;

        double y = 4.5;

        double z = Math.max( x, y );

        System.out.print(z);
    }
}
```

- a) true
- b) flase
- c) 3.1
- d) 4.5

View Answer

Answer: d

Explanation: None.

Output:

```
$ javac Output.java
$ java Output
4.5
```

10. What is the output of this program?

```
class Output
{
    public static void main(String args[])
    {
        double x = 2.0;

        double y = 3.0;

        double z = Math.pow( x, y );

        System.out.print(z);
    }
}
```

- a) 2.0
- b) 4.0
- c) 8.0
- d) 9.0

View Answer

Answer: c

Explanation: Math.pow(x, y) methods returns value of y to the power x, i.e  $x^y$ ,  $2.0^3.0 = 8.0$ .

Output:

```
$ javac Output.java
```

```
$ java Output
```

```
8.0
```

#### Java Questions & Answers – Java.lang – System Class Advance

This set of Java Multiple Choice Questions & Answers (MCQs) focuses on “System Class Advance”.

1. Which of these exceptions is thrown by methods of System class?

- a) IOException
- b) SystemException
- c) SecurityException
- d) InputOutputException

View Answer

Answer: c

Explanation: System class methods throw SecurityException.

2. Which of these methods initiates garbage collection?

- a) gc()
- b) garbage()
- c) garbagecollection()
- d) Systemgarbagecollection()

View Answer

Answer: a

Explanation: None.

3. Which of these methods loads the specified dynamic library?

- a) load()
- b) library()
- c) loadlib()

d) loadlibrary()

View Answer

Answer: a

Explanation: load() methods loads the dynamic library whose name is specified.

4. Which of these method can set the out stream to OutputStream?

a) setStream()

b) setostream()

c) setOut()

d) streamtoOstream()

View Answer

Answer: c

Explanation: None.

5. Which of these values are returns under the case of normal termination of a program?

a) 0

b) 1

c) 2

d) 3

View Answer

Answer: a

Explanation: None.

6. What is the output of this program?

```
1. import java.lang.System;
2. class Output
3. {
4.     public static void main(String args[])
5.     {
6.         long start, end;
7.         start = System.currentTimeMillis();
8.         for (int i = 0; i < 10000000; i++);
9.         end = System.currentTimeMillis();
10.        System.out.print(end - start);
11.    }
12. }
```

a) 0

b) 1

c) 1000

d) System Dependent

View Answer

Answer: d

Explanation: End time is the time taken by loop to execute it can be any non zero value depending on the System.

Output:

\$ javac Output.java

\$ java Output

78

7. What is the output of this program?

```
1. import java.lang.System;
2. class Output
3. {
4.     public static void main(String args[])
5.     {
6.         byte a[] = { 65, 66, 67, 68, 69, 70 };
7.         byte b[] = { 71, 72, 73, 74, 75, 76 };
8.         System.arraycopy(a, 0, b, 0, a.length);
9.         System.out.print(new String(a) + " " + new String(b));
10.    }
11. }
```

a) ABCDEF ABCDEF

b) ABCDEF GHIJKL

c) GHIJKL ABCDEF

d) GHIJKL GHIJKL

View Answer

Answer: a

Explanation: System.arraycopy() is a method of class System which is used to copy a string into another string.

Output:

\$ javac Output.java

\$ java Output

ABCDEF ABCDEF

8. What is the output of this program?

```
1. import java.lang.System;
2. class Output
3. {
4.     public static void main(String args[])
5.     {
6.         byte a[] = { 65, 66, 67, 68, 69, 70 };
7.         byte b[] = { 71, 72, 73, 74, 75, 76 };
8.         System.arraycopy(a, 0, b, 3, a.length - 3);
9.         System.out.print(new String(a) + " " + new String(b));
10.    }
11. }
```

a) ABCDEF ABCDEF

b) ABCDEF GHIJKL

c) ABCDEF GHIABC

d) GHIJKL GHIJKL

View Answer

Answer: c

Explanation: System.arraycopy() is a method of class System which is used to copy a string into another string.

Output:

```
$ javac Output.java
```

```
$ java Output
```

```
ABCDEF GHIABC
```

9. What is the output of this program?

advertisement

```
1. import java.lang.System;
2. class Output
3. {
4.     public static void main(String args[])
5.     {
6.         byte a[] = { 65, 66, 67, 68, 69, 70 };
7.         byte b[] = { 71, 72, 73, 74, 75, 76 };
8.         System.arraycopy(a, 2, b, 3, a.length - 4);
9.         System.out.print(new String(a) + " " + new String(b));
10.    }
11. }
```

a) ABCDEF ABCDEF

b) ABCDEF GHIJKL

c) ABCDEF GHIABC

d) ABCDEF GHICDL

View Answer

Answer: d

Explanation: System.arraycopy() is a method of class System which is used to copy a string into another string.

Output:

```
$ javac Output.java
```

```
$ java Output
```

```
ABCDEF GHICDL
```

10. What value will this program return to Java run-time system?

```
1. import java.lang.System;
2. class Output
3. {
4.     public static void main(String args[])
5.     {
6.         System.exit(5);
7.     }
8. }
```

a) 0

b) 1

c) 4

d) 5

View Answer

Answer: d

Explanation: None.

**Java Questions & Answers – Java.lang – Double & Float Wrappers**

This set of Java Multiple Choice Questions & Answers (MCQs) focuses on “Double & Float Wrappers”.

1. Which of these is a super class of wrappers Double and Float?

- a) Long
- b) Digits
- c) Float
- d) Number

View Answer

Answer: d

Explanation: Number is an abstract class containing subclasses Double, Float, Byte, Short, Integer and Long.

2. Which of the following methods return the value as a double?

- a) doubleValue()
- b) converDouble()
- c) getDouble()
- d) getDoubleValue()

View Answer

Answer: a

Explanation: None.

3. Which of these methods can be used to check whether the given value is a number or not?

- a) isNaN()
- b) isNumber()
- c) checkNaN()
- d) checkNumber()

View Answer

Answer: a

Explanation: isNaN() methods returns true if num specified is not a number, otherwise it returns false.

4. Which of these method of Double wrapper can be used to check whether a given value is infinite or not?

- a) Infinite()
- b) isInfinite()
- c) checkInfinite()
- d) None of the mentioned

View Answer

Answer: b

Explanation: isInfinite() methods returns true if specified value is an infinite value otherwise it returns false.

5. Which of these exceptions is thrown by compareTo() method defined in double wrapper?

- a) IOException
- b) SystemException
- c) CastException
- d) ClassCastException

View Answer

Answer: d

Explanation: compareTo() methods compare the specified object to be double, if it is not then ClassCastException is thrown.

6. What is the output of this program?

```

1.      class Output
2.      {
3.          public static void main(String args[])
4.          {
5.              Double i = new Double(257.5);
6.              boolean x = i.isNaN();
7.              System.out.print(x);
8.          }
9.      }
```

- a) true
- b) false
- c) 0
- d) 1

View Answer

Answer: b

Explanation: i.isNaN() method returns true if i is not a number and false when i is a number. Here false is returned because i is a number i.e 257.5.

Output:

```

$ javac Output.java
$ java Output
false
```

7. What is the output of this program?

```

1.      class Output
2.      {
3.          public static void main(String args[])
```



```

4.      {
5.          Integer i = new Integer(257);
6.          byte x = i.byteValue();
7.          System.out.print(x);
8.      }
9.  }
```

- a) 0
- b) 1
- c) 256
- d) 257

View Answer

Answer: b

Explanation: i.byteValue() method returns the value of wrapper i as a byte value. i is 257, range of byte is 256 therefore i value exceeds byte range by 1 hence 1 is returned and stored in x.

Output:

```

$ javac Output.java
$ java Output
1
```

8. What is the output of this program?

```

1.      class Output
2.      {
3.          public static void main(String args[])
4.          {
5.              Double i = new Double(257.578);
6.              int x = i.intValue();
7.              System.out.print(x);
8.          }
9.      }
```

- a) 0
- b) 1
- c) 256
- d) 257

View Answer

Answer: d

Explanation: i.intValue() method returns the value of wrapper i as a Integer. i is 257.578 is double number when converted to an integer data type its value is 257.

Output:

```

$ javac Output.java
$ java Output
257
```

9. What is the output of this program?

advertisement

```

1.      class Output
2.      {
3.          public static void main(String args[])
4.          {
5.              Double i = new Double(257.578123456789);
6.              float x = i.floatValue();
7.              System.out.print(x);
8.          }
9.      }
```

- a) 0
- b) 257.0
- c) 257.57812
- d) 257.578123456789

View Answer

Answer: c

Explanation: floatValue() converts the value of wrapper i into float, since float can measure till 5 places after decimal hence 257.57812 is stored in floating point variable x.

Output:

```

$ javac Output.java
$ java Output
257.57812
```

10. What is the output of this program?

```

1.      class Output
2.      {
```

```

3.         public static void main(String args[])
4.         {
5.             Double y = new Double(257.57812);
6.             Double i = new Double(257.578123456789);
7.             try
8.             {
9.                 int x = i.compareTo(y);
10.                System.out.print(x);
11.            }
12.            catch(ClassCastException e)
13.            {
14.                System.out.print("Exception");
15.            }
16.        }
17.    }

```

- a) 0
- b) 1
- c) Exception
- d) None of the mentioned

View Answer

Answer: b

Explanation: i.compareTo() methods two double values, if they are equal then 0 is returned and if not equal then 1 is returned, here 257.57812 and 257.578123456789 are not equal hence 1 is returned and stored in x.

Output:

```

$ javac Output.java
$ java Output
1

```

### Java Questions & Answers – Java.io Character Streams

This section of our 1000+ Java MCQs focuses on character streams of Java Programming Language.

1. Which of these stream contains the classes which can work on character stream?

- a) InputStream
- b) OutputStream
- c) Character Stream
- d) All of the mentioned

View Answer

Answer: c

Explanation: InputStream & OutputStream classes under byte stream they are not streams. Character Stream contains all the classes which can work with Unicode.

2. Which of these class is used to read characters in a file?

- a) FileReader
- b) FileWriter
- c) FileInputStream
- d) InputStreamReader

View Answer

Answer: a

Explanation: None.

3. Which of these method of FileReader class is used to read characters from a file?

- a) read()
- b) scanf()
- c) get()
- d) getInteger()

View Answer

Answer: a

Explanation: None.

4. Which of these class can be used to implement input stream that uses a character array as the source?

- a) BufferedReader
- b) FileReader
- c) CharArrayReader
- d) FileArrayReader

View Answer

Answer: c

Explanation: CharArrayReader is an implementation of an input stream that uses character array as a source. Here array is the input source.

5. Which of these is a method to clear all the data present in output buffers?

- a) clear()
- b) flush()
- c) fflush()

d) close()

[View Answer](#)

Answer: b

Explanation: None.

6. Which of these classes can return more than one character to be returned to input stream?

- a) BufferedReader
- b) Bufferedwriter
- c) PushbachReader
- d) CharArrayReader

[View Answer](#)

Answer: c

Explanation: PushbackReader class allows one or more characters to be returned to the input stream. This allows looking ahead in input stream and performing action accordingly.

7. What is the output of this program?

```
1. import java.io.*;
2. class filesinputoutput
3. {
4.     public static void main(String args[])
5.     {
6.         InputStream obj = new FileInputStream("inputoutput.java");
7.         System.out.print(obj.available());
8.     }
9. }
```

Note: inputoutput.java is stored in the disk.

- a) true
- b) false
- c) prints number of bytes in file
- d) prints number of characters in the file

[View Answer](#)

Answer: c

Explanation: obj.available() returns the number of bytes.

Output:

```
$ javac filesinputoutput.java
$ java filesinputoutput
1422
```

(Output will be different in your case)

8. What is the output of this program?

advertisement

```
1. import java.io.*;
2. class Chararrayinput
3. {
4.     public static void main(String[] args)
5.     {
6.         String obj = "abcdef";
7.         int length = obj.length();
8.         char c[] = new char[length];
9.         obj.getChars(0,length,c,0);
10.        CharArrayReader input1 = new CharArrayReader(c);
11.        CharArrayReader input2 = new CharArrayReader(c, 0, 3);
12.        int i;
13.        try
14.        {
15.            while ((i = input1.read()) != -1)
16.            {
17.                System.out.print((char)i);
18.            }
19.        }
20.        catch (IOException e)
21.        {
22.            // TODO Auto-generated catch block
23.            e.printStackTrace();
24.        }
25.    }
26. }
```

- a) abc
- b) abcd

c) abcde  
d) abcdef  
View Answer  
Answer: d

Explanation: None.

Output:

```
$ javac Chararrayinput.java
$ java Chararrayinput
abcdef
```

9. What is the output of this program?

```
1. import java.io.*;
2. class Chararrayinput
3. {
4.     public static void main(String[] args)
5.     {
6.         String obj = "abcdef";
7.         int length = obj.length();
8.         char c[] = new char[length];
9.         obj.getChars(0, length, c, 0);
10.        CharArrayReader input1 = new CharArrayReader(c);
11.        CharArrayReader input2 = new CharArrayReader(c, 0, 3);
12.        int i;
13.        try
14.        {
15.            while ((i = input2.read()) != -1)
16.            {
17.                System.out.print((char)i);
18.            }
19.        }
20.        catch (IOException e)
21.        {
22.            // TODO Auto-generated catch block
23.            e.printStackTrace();
24.        }
25.    }
26. }
```

a) abc  
b) abcd  
c) abcde  
d) abcdef  
View Answer  
Answer: a

Explanation: None.

Output:

```
$ javac Chararrayinput.java
$ java Chararrayinput
abc
```

10. What is the output of this program?

```
1. import java.io.*;
2. class Chararrayinput
3. {
4.     public static void main(String[] args)
5.     {
6.         String obj = "abcdefgh";
7.         int length = obj.length();
8.         char c[] = new char[length];
9.         obj.getChars(0, length, c, 0);
10.        CharArrayReader input1 = new CharArrayReader(c);
11.        CharArrayReader input2 = new CharArrayReader(c, 1, 4);
12.        int i;
13.        int j;
14.        try
15.        {
16.            while ((i = input1.read()) == (j = input2.read()))
17.            {
18.                System.out.print((char)i);
```

```

19.         }
20.     }
21.     catch (IOException e)
22.     {
23.         // TODO Auto-generated catch block
24.         e.printStackTrace();
25.     }
26. }
27. }

```

- a) abc
- b) abcd
- c) abcde
- d) None of the mentioned

View Answer

Answer: d

Explanation: No output is printed. CharArrayReader object input1 contains string “abcdefgh” whereas object input2 contains string “bcde”, when while((i=input1.read())==(j=input2.read())) is executed the starting character of each object is compared since they are unequal control comes out of loop and nothing is printed on the screen.

Output:

```

$ javac Chararrayinput.java
$ java Chararrayinput

```

### Java Questions & Answers – Java.lang – Class

This section of our 1000+ Java MCQs focuses Class of java.lang library of Java Programming Language.

1. Which of these classes encapsulate runtime state of an object?

- a) Class
- b) System
- c) Runtime
- d) Catche

View Answer

Answer: a

Explanation: None.

2. Which of the following constant are defined in Boolean wrapper?

- a) TRUE
- b) FALSE
- c) TYPE
- d) All of the mentioned

View Answer

Answer: d

Explanation: Boolean wrapper defines 3 constants – TRUE, FLASE & TYPE.

3. Which of these methods returns the class of an object?

- a) getClass()
- b) Class()
- c) WhoseClass()
- d) WhoseObject()

View Answer

Answer: a

Explanation: None.

4. Which of these methods is used to know whether a string contains “true”?

- a) valueOf()
- b) valueOfString()
- c) getString()
- d) None of the mentioned

View Answer

Answer: a

Explanation: valueOf() returns true if the specified string contains “true” in lower or uppercase and false otherwise.

5. Which of these class have only one field?

- a) Character
- b) Boolean
- c) Byte
- d) void

View Answer

Answer: d

Explanation: Void class has only one field – TYPE, which holds a reference to the Class object for type void. We do not create instance of this class.

6. What is the output of this program?

```

1.     class X
2.     {

```

```

3.         int a;
4.         double b;
5.     }
6.     class Y extends X
7.     {
8.     int c;
9.     }
10.    class Output
11.    {
12.        public static void main(String args[])
13.        {
14.            X a = new X();
15.            Y b = new Y();
16.            Class obj;
17.            obj = a.getClass();
18.            System.out.print(obj.getName());
19.        }
20.    }

```

- a) X
- b) Y
- c) a
- d) b

View Answer

Answer: a

Explanation: getClass() is used to obtain the class of an object, here 'a' is an object of class 'X'. hence a.getClass() returns 'X' which is stored in class Class object obj.

Output:

```
$ javac Output.java
```

```
$ java Output
```

```
X
```

7. What is the output of this program?

```

1.     class X
2.     {
3.         int a;
4.         double b;
5.     }
6.     class Y extends X
7.     {
8.     int c;
9.     }
10.    class Output
11.    {
12.        public static void main(String args[])
13.        {
14.            X a = new X();
15.            Y b = new Y();
16.            Class obj;
17.            obj = b.getClass();
18.            System.out.print(obj.getSuperclass());
19.        }
20.    }

```

- a) X
- b) Y
- c) class X
- d) class Y

View Answer

Answer: c

Explanation: getSuperClass() returns the super class of an object. b is an object of class Y which extends class X, Hence Super class of b is X. therefore class X is printed.

Output:

```
$ javac Output.java
```

```
$ java Output
```

```
class X
```

8. What is the output of this program?

```

1.     class X
2.     {

```

```

3.      int a;
4.      double b;
5.      }
6.      class Y extends X
7.      {
8.  int c;
9.      }
10.     class Output
11.     {
12.         public static void main(String args[])
13.         {
14.             X a = new X();
15.             Y b = new Y();
16.             Class obj;
17.             obj = b.getClass();
18.             System.out.print(b.equals(a));
19.         }
20.     }

```

- a) 0
- b) 1
- c) true
- d) false

View Answer

Answer: d

Explanation: None.

Output:

```

$ javac Output.java
$ java Output
false

```

9. What is the output of this program?

advertisement

```

1.      class X
2.      {
3.          int a;
4.          double b;
5.      }
6.      class Y extends X
7.      {
8.  int c;
9.      }
10.     class Output
11.     {
12.         public static void main(String args[])
13.         {
14.             X a = new X();
15.             Y b = new Y();
16.             Class obj;
17.             obj = b.getClass();
18.             System.out.print(obj.isInstance(a));
19.         }
20.     }

```

- a) 0
- b) 1
- c) true
- d) false

View Answer

Answer: d

Explanation: Although class Y extends class X but still a is not considered related to Y. hence isInstance() returns false.

Output:

```

$ javac Output.java
$ java Output
false

```

10. What is the output of this program?

```

1.      class X
2.      {
3.          int a;

```

```

4.         double b;
5.     }
6.     class Y extends X
7.     {
8.     int c;
9.     }
10.    class Output
11.    {
12.        public static void main(String args[])
13.        {
14.            X a = new X();
15.            Y b = new Y();
16.            Class obj;
17.            obj = b.getClass();
18.            System.out.print(obj.isLocalClass());
19.        }
20.    }

```

- a) 0
- b) 1
- c) true
- d) false

View Answer

Answer: d

Explanation: None.

Output:

```

$ javac Output.java
$ java Output
false

```

### Java Questions & Answers – Data Structures-List

This set of Java Multiple Choice Questions & Answers (MCQs) focuses on “Data Structures-List”.

1. How can we remove an object from ArrayList?

- a) remove() method
- b) using Iterator
- c) remove() method and using Iterator
- d) delete() method

View Answer

Answer: c

Explanation: There are 2 ways to remove an object from ArrayList. We can use overloaded method remove(int index) or remove(Object obj). We can also use an Iterator to remove the object.

2. How to remove duplicates from List?

- a) HashSet<String> listToSet = new HashSet<String>(duplicateList);
- b) HashSet<String> listToSet = duplicateList.toSet();
- c) HashSet<String> listToSet = Collections.convertToSet(duplicateList);
- d) HashSet<String> listToSet = duplicateList.getSet();

View Answer

Answer: a

Explanation: Duplicate elements are allowed in List. Set contains unique objects.

3. How to sort elements of ArrayList?

- a) Collection.sort(listObj);
- b) Collections.sort(listObj);
- c) listObj.sort();
- d) Sorter.sortAsc(listObj);

View Answer

Answer: b

Explanation: Collections provides a method to sort the list. The order of sorting can be defined using Comparator.

4. When two threads access the same ArrayList object what is the outcome of program?

- a) Both are able to access the object
- b) ConcurrentModificationException is thrown
- c) One thread is able to access the object and second thread gets Null Pointer exception
- d) One thread is able to access the object and second thread will wait till control is passed to second one

View Answer

Answer: b

Explanation: ArrayList is not synchronized. Vector is the synchronized data structure.

5. How is Arrays.asList() different than the standard way of initialising List?

- a) Both are same



- b) Arrays.asList() throws compilation error
- c) Arrays.asList() returns a fixed length list and doesn't allow to add or remove elements
- d) We cannot access the list returned using Arrays.asList()

View Answer

Answer: c

Explanation: List returned by Arrays.asList() is a fixed length list which doesn't allow us to add or remove element from it.add() and remove() method will throw UnsupportedOperationException if used.

6. What is the difference between length() and size() of ArrayList?

- a) length() and size() return the same value
- b) length() is not defined in ArrayList
- c) size() is not defined in ArrayList
- d) length() returns the capacity of ArrayList and size() returns the actual number of elements stored in the list

View Answer

Answer: d

Explanation: length() returns the capacity of ArrayList and size() returns the actual number of elements stored in the list which is always less than or equal to capacity.

7. Which class provides thread safe implementation of List?

- a) ArrayList
- b) CopyOnWriteArrayList
- c) HashList
- d) List

View Answer

Answer: b

Explanation: CopyOnWriteArrayList is a concurrent collection class. Its very efficient if ArrayList is mostly used for reading purpose, because it allows multiple threads to read data without locking, which was not possible with synchronized ArrayList.

8. Which of the below is not an implementation of List interface?

- a) RoleUnresolvedList
- b) Stack
- c) AttibuteList
- d) SessionList

View Answer

Answer: d

Explanation: SessionList is not an implementation of List interface. The others are concrete classes of List.

9. What is the worst case complexity of accessing an element in ArrayList?

- a) O(n)
- b) O(1)
- c) O(nlogn)
- d) O(2)

View Answer

Answer: b

Explanation: ArrayList has O(1) complexity for accessing an element in ArrayList. O(n) is the complexity for accessing an element from LinkedList.

10. When an array is passed to a method, will the content of the array undergo changes with the actions carried within the function?

- a) True
- b) False

View Answer

Answer: a

Explanation: If we make a copy of array before any changes to the array the content will not change. Else the content of the array will undergo changes.

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```

1. public void setMyArray(String[] myArray)
2. {
3.     if(myArray == null)
4.     {
5.         this.myArray = new String[0];
6.     }
7.     else
8.     {
9.         this.myArray = Arrays.copyOf(newArray, newArray.length);
10.    }
11. }
```

### Java Questions & Answers – Regular Expression

This set of Java Multiple Choice Questions & Answers (MCQs) focuses on "Regular Expression".

1. Which of the following is not a class of java.util.regex?

- a) Pattern class
- b) matcher class
- c) PatternSyntaxException

d) Regex class

[View Answer](#)

Answer: d

Explanation: java.util.regex consists 3 classes. PatternSyntaxException indicates syntax error in regex.

2. What is the significance of Matcher class for regular expression in java?

a) interpretes pattern in the string

b) Performs match in the string

c) interpreted both pattern and performs match operations in the string

d) None of the mentioned.

[View Answer](#)

Answer: c

Explanation: matcher() method is invoked using matcher object which interpretes pattern and performs match operations in the input string.

3. Object of which class is used to compile regular expression?

a) Pattern class

b) Matcher class

c) PatternSyntaxException

d) None of the mentioned

[View Answer](#)

Answer: a

Explanation: object of Pattern class can represent compiled regular expression.

4. Which capturing group can represent the entire expression?

a) group \*

b) group 0

c) group \* or group 0

d) Noe of the mentioned

[View Answer](#)

Answer: b

Explanation: Group 0 is a special group which represents the entire expression.

5. groupCount reports total number of Capturing groups. True or False?

a) True

b) False

[View Answer](#)

Answer: a

Explanation: groupCount reports total number of Capturing groups. this does not include special group, group 0.

6. Which of the following matches nonword character using regular expression in java?

a) \w

b) \W

c) \s

d) \S

[View Answer](#)

Answer: b

Explanation: \W matches nonword characters. [0-9], [A-Z] and \_ (underscore) are word characters. All other than these characters are nonword characters.

7. Which of the following matches end of the string using regular expression in java?

a) \z

b) \\\

c) \\*

d) \Z

[View Answer](#)

Answer: a

Explanation: \z is used to match end of the entire string in regular expression in java.

8. What does public int end(int group) return?

a) offset from last character of the subsequent group

b) offset from first character of the subsequent group

c) offset from last character matched

d) offset from first character matched

[View Answer](#)

Answer: a

Explanation: public int end(int group) returns offset from last character of the subsequent group.

9. what does public String replaceAll(string replace) do?

a) Replace all characters that matches pattern with replacement string

b) Replace first subsequence that matches pattern with replacement string

- c) Replace all other than first subsequence of that matches pattern with replacement string
- d) Replace every subsequence of the input sequence that matches pattern with replacement string

View Answer

Answer: d

Explanation: replaceAll method replaces every subsequence of the sequence that matches pattern with replacement string.

10. What does public int start() return?

- a) returns start index of the input string
- b) returns start index of the current match
- c) returns start index of the previous match
- d) none of the mentioned

View Answer

Answer: c

Explanation: public int start() returns index of the previous match in the input string.

### Java Questions & Answers – Random Number

This set of Java Multiple Choice Questions & Answers (MCQs) focuses on “Random Number”.

1. Which class is used to generate random number?

- a) java.lang.Object
- b) java.util.randomNumber
- c) java.util.Random
- d) java.util.Object

View Answer

Answer: c

Explanation: java.util.random class is used to generate random numbers in java program.

2. Which method is used to generate boolean random values in java?

- a) nextBoolean()
- b) randomBoolean()
- c) previousBoolean()
- d) generateBoolean()

View Answer

Answer: a

Explanation: nextBoolean() method of java.util.Random class is used to generate random numbers.

3. What is the return type of Math.random() method?

- a) Integer
- b) Double
- c) String
- d) Boolean

View Answer

Answer: b

Explanation: Math.random() method returns floating point number or precisely a double.

4. Random is a final class?

- a) True
- b) False

View Answer

Answer: b

Explanation: Random is not a final class and can be extended to implement algorithm as per requirement.

5. What is the range of numbers returned by Math.random() method?

- a) -1.0 to 1.0
- b) -1 to 1
- c) 0 to 100
- d) 0.0 to 1.0

View Answer

Answer: d

Explanation: Math.random() returns only double value greater than or equal to 0.0 and less than 1.0.

6. How many bits are used for generating random numbers?

- a) 32
- b) 64
- c) 48
- d) 8

View Answer

Answer: c

Explanation: Random number can accept 64 bits but it only uses 48 bits for generating random numbers.

7. What would be the output of following code snippet?

```
int a = random.nextInt(15) + 1;
```

- a) Random number between 1 to 15, including 1 and 15
- b) Random number between 1 to 15, excluding 15
- c) Random number between 1 to 15, excluding 1
- d) Random number between 1 to 15, excluding 1 and 15

View Answer

Answer: a

Explanation: random.nextInt(15) + 1; returns random numbers between 1 to 15 including 1 and 15.

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8. What would be the output of following code snippet?

```
int a = random.nextInt(7) + 4;
```

- a) Random number between 4 to 7, including 4 and 7
- b) Random number between 4 to 7, excluding 4 and 7
- c) Random number between 4 to 10, excluding 4 and 10
- d) Random number between 4 to 10, including 4 and 10

View Answer

Answer: d

Explanation: random.nextInt(7) + 4; returns random numbers between 4 to 10 including 4 and 10. it follows “nextInt(max – min +1) + min” formula.

9. Math.random() guarantees uniqueness?

- a) True
- b) False

View Answer

Answer: b

Explanation: Math.random() doesn't guarantee uniqueness. To guarantee uniqueness we must store the generated value in database and compare against already generated values.

10. What is the signature of Math.random() method?

- a) public static double random()
- b) public void double random()
- c) public static int random()
- d) public void int random()

View Answer

Answer: a

Explanation: public static double random() is the utility method provided by Math class which returns double.