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| Course- BTech | Type- Core |
| Course Code- **CSET109** | Course Name- **Object Oriented Programming Using Java** |
| Year- First | Semester- Even Batch- BTech 2nd Semester |

**Tutorial-3**

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| **Tutorial No.** | **Name** | **CO1** | **CO2** | **CO3** |
| **3** | **Basics** |  | **--** | **--** |

**Objective:** The main objective of this tutorial is to learn about the basics of Java language.

* 1. What will be the Output of the below code:

public class prob4 {  
 public static void main(String[] args) {  
 int x = 20;  
 System.*out*.println(x);  
 }  
 static {  
 int x = 10;  
 System.*out*.print(x + " ");  
 }  
}

OUTPUT –

10 20

class Test1 {  
 int x = 10;  
 public static void main(String[] args) {  
 System.*out*.println(x);  
  
 }  
 static {  
 System.*out*.print(x + " ");  
 }  
}

OUTPUT –

Non static field ‘x’ cannot be referenced from a static context

* 1. What will be the output of the following program?

class prob4 {  
 public static void main(String[] args)  
 {  
 String str[] = { "Geeks", "for", "Geeks" };  
 System.*out*.println(str.length);  
 System.*out*.println(str[0].length);

// a.getClass().getName()

}  
}

OUTPUT -

6:34:java: cannot find symbol

symbol: variable length

location: class java.lang.String

class prob4 {  
 public static void main(String[] args)  
 {  
 String str[] = { "Geeks", "for", "Geeks" };  
 System.*out*.println(str.length);  
 //System.out.println(str[0].length);  
 }  
}

OUTPUT -

3

* 1. What is the result of the following code?

class prob4 {  
 public static void main(String[] args)  
 {  
 int arr[] = new int[5];  
 int arr2[] = new int['a'];  
 byte bt = 10;  
 int arr3[] = new int[bt];  
 System.*out*.println(arr.length);  
 System.*out*.println(arr2.length);  
 System.*out*.println(arr3.length);  
 }  
}

OUTPUT –

5

97

10

* 1. What is the output of following code?

class prob4 {  
 public static void main(String[] args)  
 {  
 int arr[] = { 11, 22, 33 };  
 for (int i = 0; i < arr.length; i++)   
 System.*out*.print(arr[i] + " ");  
  
 System.*out*.println();  
  
 int arr2[] = new int[3];   
 arr2[] = { 11, 22, 33 };  
 for (int i = 0; i < arr2.length; i++)   
 System.*out*.print(arr2[i] + " ");  
 }  
}

OUTPUT –

11:13:java: not a statement

* 1. What will be the output of following code?

import static java.lang.System.*out*;  
  
class prob4 {  
 static int *x*=20;  
 public static void main(String[] args){

int x=30;  
 *out*.println(x);  
 }  
}

OUTPUT –

30

* 1. What would be the result of the following code?

import static java.lang.System.*out*;  
  
class prob4 {  
 static int *x* = 5;  
 void m(){  
 int x=10;  
 x++;  
 *out*.printf("%d", x);  
 }  
 public static void main(String[] args){  
 new prob4().m();  
 }  
}

OUTPUT –

11

* 1. What will be the output of the following program?

import static java.lang.System.*out*;  
  
class prob4 {  
 static int *x* = 5;  
 static void m(){  
 int x=10;  
 ++x; --x; --x; x++;  
 *out*.printf("%d", x);  
 }  
 public static void main(String[] args){  
 prob4.*m*();  
 new prob4().*m*();  
 }  
}

OUTPUT –

1010

* 1. What will be the Output of the below code

import static java.lang.System.*err*;  
  
class prob4 {  
 static double *x* ;  
 static void m(int x){  
 *err*.printf("x is: %d", x);  
 }  
 public static void main(String[] args){  
 prob4.*m*(34);  
 }  
}

OUTPUT –

x is: 34 (in red)

* 1. What will be the Output of the below code:

import static java.lang.System.*out*;  
  
class prob4 {  
 static int *x* ;  
 { if(++*x*<2){  
 *out*.printf("true");  
 }  
 }  
 public static void main(String[] args){   
 new prob4();  
 }  
}

**OUTPUT –**

**true**

* 1. What will be the output of the following program?

class prob4 {  
 int x = 10;  
 static {  
 int x = 20;  
 System.*out*.print(x + " ");  
 }  
 public static void main(String[] args){  
 System.*out*.print("start of main");  
 prob4 t1 = new prob4();  
 System.*out*.println(t1.x);  
 }  
}

OUTPUT –

20 start of main 10

* 1. What is the output of following code?

import java.util.\*;  
  
class prob4 {  
 public static void main(String args[]) {  
 int arr1[] = {11, 22, 33};  
 int arr2[] = {11, 22, 33, 44, 55};  
 int ptr[];  
 ptr = arr1;  
 arr1 = arr2;  
 arr2 = ptr;  
 System.*out*.print(arr1.length + " ");  
 System.*out*.println(Arrays.*toString*(arr1));  
 System.*out*.print(arr2.length+" "+Arrays.*toString*(arr2));  
 }  
}

OUTPUT –

5 [11, 22, 33, 44, 55]

4 [11, 22, 33]

* 1. What is the output of following code?

import java.util.\*;  
  
public class prob4 {  
 public static void main(String []args) {  
 int arr[]={5,3,1,6,2};  
 int val=0;  
 val = arr[0];  
 for(int i=1; i<arr.length;i++) {  
 if (val < arr[i]) val = arr[i];  
 }  
 System.*out*.println(val);  
  
 Arrays.*sort*(arr);  
 System.*out*.println(Arrays.*toString*(arr));  
 }  
}

OUTPUT –

6

[1, 2, 3, 5, 6]