

INTRODUCTION TO JAVA

LECTURE 4 : CONDITIONALS AND LOOPS

(Error in code)

1. What is the error in this code?

```
byte b = 50;  
b = b * 50;
```

- a) b can not contain value 2500, limited by its range.
- b) * operator has converted b * 50 into int, which can not be converted to byte without casting.
- c) b can not contain value 50.
- d) No error in this code

(Find the output)

2.

```
public class Solution{  
    public static void main(String [] args) {  
        double a = 6 / 4;  
        int b = 6 / 4;  
        double c = a + b;  
        System.out.println(c);  
    }  
}
```

- a) 3.0
- c) 2.0

- b) 1.5
- d) 2.5

(Predict the output)

3.

```
public class Solution{  
    public static void main(String [] args) {  
        double a = 55.5;  
        int b = 55;  
        a = a % 10;  
        b = b % 10;  
        System.out.println(a + " " + b);  
    }  
}
```

- a) 5 5
- c) 6 5

- b) 5.5 5
- d) None of these

(Predict the output)

4.

```

public class Solution {
    public static void main(String [] args) {
        int var1 = 5;
        int var2 = 6;
        System.out.print(var1 > var2);
    }
}

```

a) true

b) false

c) 0

d) 1

(Find output)

5. Find the output of the following code:

```

public static void main(String args[])
{
    int a=10,b=15;
    if(a>b)
    {
        System.out.print("a ");
    }
    else
    {
        System.out.print("b ");
    }
    System.out.print("is greater");
}

```

a) a

b) b

c) a is greater

d) b is greater

(Find output)

6. Find the output of the following code:

```

int a=50;
if(a>10)
{
    System.out.print("Coding");
}
else(a>20)
{
    System.out.print("Ninjas");
}

```

a) Coding

b) Ninjas

c) CodingNinjas

d) Compile time error

(Find the output)

7.

```

public static void main(String args[])
{
    int x = 5;
    if (x < 6)
        System.out.print("Hello ");
    if(x == 5){
        System.out.print("Hi ");
    }
    else{
        System.out.print("Hey ");
    }
}

```

a) Hello

b) Hi

c) Hello Hi

d) Hello Hey

(Figure out the output)

8.

```

public static void main(String[] args) {
    int x = 15;
    if(x <= 15){
        System.out.print("Inside if ");
    }else if(x == 15){
        System.out.print("Inside else if ");
    }
    System.out.println(x);
}

```

a) Inside if

b) 15

c) Inside if 15

d) Inside if Inside else if 15

(What will be the output)

9.

```

public static void main(String args[]) {
    int var1 = 5;
    int var2 = 6;
    if ((var2 = 1) == var1)
        System.out.print(var2);
    else
        System.out.print(var2 + 1);
}

```

a) 7

b) 1

c) 2

d) 6

(Positive Negative)

10. Let a and b are the two integers. Which option can be used to check out of two numbers one is positive and the other is negative

a) $a < 0 \&\& b > 0$

b) $a > 0 \&\& b < 0$

c) $a < 0 \parallel b < 0$

d) $a * b < 0$

(Find the output)

11. Find the output of the following code:

```
public static void main (String[] args)
{
    int a=50;
    int b=5;
    if(a/0==b)
    {

        System.out.println("Hello");
    }
    else
    {
        System.out.println("Hi");
    }
}
```

a) Hello

c) Compile time error

b) Hi

d) Run time error

(Find the output)

12. Find the output of the code :

```
main() {
    int a=50,b=20;
    if(a>b)
    {
        if(a>100)
            print ("Ace");
        if(b<100)
            b=50;
    }
    else if(a==b)
    {
        print ("King");
    }
    else
    {
        print ("Queen");
    }
}
```

a) No output

c) Queen

b) King

d) Ace

(Find the output)

13. What will be the output of the following code:

```
public static void main (String[] args)
{
    int i=0;
    while(i<10)
    {
        i=i+1;
        System.out.print(i);
        i=i+1;
    }
}
```

(Number of hello)

14. The number of Hello printed on the screen for the following code will be:

```
public static void main (String[] args)
{
    int x=5;
    int y=5;
    while((x=5)==y)
    {
        System.out.println("Hello");
        x++;
        y++;
    }
}
```

- a) Infinite
- c) One

- b) Zero
- d) Error

(Number of hello 2)

15. The number of Hello printed on the screen for the following code will be:

```
public static void main (String[] args) {
    int x=5;
    int y=5;
    while(x==y)
    {
        System.out.println("Hello");
        x++;
        y++;
    }
}
```

- a) 1
- c) 5

- b) Infinite
- d) 0

(Same output)

16. Which of the following codes gives same output:

```
1) int i=1;
   while(i<5)
   {
       System.out.print(2*i);
       i=i+1;
   }
```

```
2) int i=2;
   while(i<10)
   {
       System.out.print(i);
       i=i+2;
   }
```

```
3) int i=2;
   while(i<10)
   {
       System.out.print(i);
       i*=2;
   }
```

```
4) int i=10;
   while(i>0)
   {
       if(i%2==0)
       {
           System.out.print(10-i);
       }
       i--;
   }
```

a) 2 4

c) 1 2

b) 1 2 3 4

d) 1 2 4

(Primality Check)

17. Can this code be used to check primality of a positive integer:

```
public static void main (String[] args)
{
    Scanner s=new Scanner (System.in);
    int n=s.nextInt();
    boolean isprime=true;
    if(n%2==0)
        isprime=false;
    int i=3;
    while(isprime&& i<n)
    {
        isprime=!(n%i==0);
        i+=2;
    }
    if(isprime)
```

```

    {
        System.out.println("Prime");
    }
    else
    {
        System.out.println("Composite");
    }
}

```

a) Yes

b) No

(Find the output)

18. Find the output for the following code:

```

int i=10;
while((i=i-1)>0)
{
    System.out.print(i);
    if(i%5==0)
        return;
}

```

a) 987654321

c) 98765

b) Error

d) 9876

(Check the error)

19. Will following code generate error ?

```

public class Main {
    public static void main(String[] args) {
        int a = 10;
        if(a > 5) {
            int b = 10;
        }
        System.out.println(b);
    }
}

```

a) Yes

b) No

(Check the error)

20. Will following code generate error ?

```

public class Main {
    public static void main(String[] args) {
        int a = 10;
        if(a > 5) {
            a = 100;
        }
        System.out.println(a);
    }
}

```

```
}
```

a) Yes

b) No

(Check the error)

21. Will following code generate error ?

```
public class Main {  
    public static void main(String[] args) {  
        int a = 10;  
        if(a > 5) {  
            int a = 100;  
        }  
        System.out.println(a);  
    }  
}
```

a) Yes

b) No

(Check the error)

22. Will following code generate error ?

```
public class Main {  
    public static void main(String[] args) {  
        for(int i = 0; i < 3; i++) {  
            System.out.print(i + " ");  
        }  
        System.out.print(i + " ");  
    }  
}
```

a) Yes

b) No

(What is the output)

23. What is the output ?

```
public class Main {  
    public static void main(String[] args) {  
        int a = 10;  
        while(a > 5) {  
            int b = 1;  
            System.out.print(b + " ");  
            a--;  
        }  
    }  
}
```

a) 10 9 8 7 6

b) 1 1 1 1 1

c) Error

d) Infinite loop
