

Q1 - What would the compiler display with the following statements:

1)

```
float anotherVar = 345;    no error (345.0)
```

2)

```
double x=5.1;
```

```
float i=1;
```

```
int j = (int)(i*x);
```

```
System.out.println("Mixed integer and float: j= "+j);
```

Mixed integer and float: j= 5

3)

```
char c = 'c';
```

```
int i;
```

```
i=c;
```

```
System.out.println(i);
```

i ascii code of 'c'

A - Z : 65 - 90, a - z : 97 - 122;

4)

```
double i;
```

```
i = (int)3.4/1;
```

i=3.0

**Q-2 Write a program to input the following data of a student then print them out:
name, age, grade, average**

```
import java.io.*;
```

```
public class Data
```

```
{
```

```
    public static void main (String[] args) throws IOException
```

```
    {
```

```
        String name;
```

```
        int age;
```

```
        char grade;
```

```
        double average;
```

```
        System.out.println("Enter the name: ");
```

```
        name = stdin.readLine();
```

```
        System.out.println("Enter age: ");
```

```

age = Integer.parseInt(stdin.readLine());

System.out.println("Enter the grade:");
grade = stdin.readLine();

System.out.println("Enter salary: ");
salary = Double.parseDouble(stdin.readLine());

System.out.println("Your name: "+name);
System.out.println("Your age: "+age);
System.out.println("Your grade: "+grade);
System.out.println("Your average: "+average);
}

```

Q-3

let a = 2, b = 5

What are the values of a and b after running the following statements:

- 1) b = a--; a=1 , b=2
- 2) b = --a; a=1 , b=1
- 3) b = a++; a=3 , b=2
- 4) b = ++a; a=3 , b=3
- 5) b = a%b; a=2 , b=2

Q-4

What will be the output of the following program:

```

public class Name
{
    public static void main (String[] args)
    {
        boolean b;
        b = (2<=4)&&(3<12);
        System.out.println("b= "+b);      b= true
        b = false && true || true;
        System.out.println("b= "+b);      b= true
        System.out.println("Smith"+"Rachel");      SmithRachel
    }
}

```

Q1)))

Why the following expressions give compilation error?

long n; n=12345678874543;

long n; n=12345678874543L;

float f; f=9.34;

true

int i; i = (int)3.4/1.1;

int i; i = (int)(3.4/1.1);

Q2)))

int a=5, b=4, c=3, x=2, y=1;

what are the values of a,b,c,x,y after the following statement:

a+= b += c *= x+y-6;

c*= x+y-6 c*= -3 c=-9

b+= c b+= -9 b=-5

a+= b a+= -5 a=0

x=2

y=1

Q3))) write a program to convert from Riyals to US Dollars and Euro

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

```
        double SAR, USD, EUR;
        SAR = 10000;
```

```
USD = SAR/3.75;  
EUR = SAR/5.48;
```

```
System.out.println("US Dollars = "+USD);  
System.out.println("Euros = "+EUR);  
}  
}
```

Q4))

**Change for statement to while statement and do-while statement
what is the output of the statement:**

```
for(int i=0; i<5; i++)  
    System.out.println("i="+i);  
i= 0  
i= 1  
i= 2  
i= 3  
i= 4
```

```
for(int i=1; i<=5; i++)  
    System.out.println("i="+i);  
1  
2  
3  
4  
5
```

```
int i=0;  
while (i<5)  
{  
    System.out.println("i="+i);  
    i++;  
}
```

```
int i=0;  
do  
{  
    System.out.println("i="+i);  
    i++;  
}  
while (i<5);
```

Q5)) Change the following fragment to if-else

```
char ch='e';
switch(ch)
{
    case'a':case'e':case'i':case'o':case'u':
        System.out.println("it is a vowel");break;
    case'+':case'-':case'*':case'/':
        System.out.println("it is an operator");break;
    default:
        System.out.println("it is something else");
}
```

```
char ch='e';
if((ch=='a')||(ch=='e')||(ch=='i')||(ch=='o')||(ch=='u'))
    System.out.println("it is a vowel");
else if((ch=='+')||(ch=='-')||(ch=='*')||(ch=='/'))
    System.out.println("it is an operator");
else
    System.out.println("it is something else");
```

Q6)) Write a Java Program that calculate the area of a circle, let pi be a constant of type double. r is an input variable of type double (read r from keyboard)

```
import java.io.*;
public class Circle
{
    public static void main(String args[]) throws io exceptions
    {
        double pi=3.14159;
        double r,A;
        system.out.println("Enter the circle radius: "); /* "r = " */
        r = double.parseDouble(stdin.readLine());
        A = pi*r*r; /* = pi*Math.pow(r,2) */
        System.out.println("Area = "+A);
    }
}
```