

Q1.Find out below switch statement output.

Code:

```
public static void main(String a[]){
    int price = 6;
    switch (price) {
        case 2: System.out.println("It is: 2");
        default: System.out.println("It is: default");
        case 5: System.out.println("It is: 5");
        case 9: System.out.println("It is: 9");
    }
}
```

PLACEMENT TRAINING
ASSIGNMENT – 1
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A) **Output:** It is: default

It is: 5

It is: 9

Reason : As input to switch case is 6 and there is no such case mentioned so it will search for default case and as there is no break statement , all the cases below the default cases will also be executed.

Q2.Rewrite the following program code using suitable 'if' command.

```
switch(m){
case 0:
    x=x+2;
    System.out.println("X=" x);
    break;
case 1:
    x=x+4;
    System.out.println("X=" x);
    break;
case 2:
    x=x+6;
    System.out.println("X=" x);
    break;
}
```

A) **Rewriting:** if(m==0){
 x+=2;
 System.out.println("X="+ x)
};
if(m==1){
 x+=4;
 System.out.println("X="+ x)
};
if(m==2){
 x+=6;
 System.out.println("X="+ x)
}

Q3. Give the output of the following code fragment when

(i) `opn = 'b'`

(ii) `opn = 'x'`

```
switch (opn)
{
case 'a':
System.out.println("Simply Coding");
break;
case 'b':
System.out.println("Online Tutor");
case 'c':
System.out.println("Online Courses");
default:
System.out.println("Invalid Input");
}
```

A) (i) `opn = 'b'`;

Output: Online Tutor
Online Courses
Invalid Input

Reason : No break statement so fall through takes place.

(ii) `opn = 'x'`

Output : Invalid Input

Q4. What is wrong in the following program code? Find any 2 errors and explain.

```
switch (p)
?
case 3:
int x= 12; int y = 35;
int z= x* y;
break;
case 3:
int a = 20;
int b = 76;
break;
int z=x * y;
```

A) Errors:

- Switch cases after switch keyword **curly braces** are necessary else syntactical error.
 - **Duplicate cases error** will arise as **case 3** is return twice.
 - In duplicate case (2nd case) after break statement , **int z=x*y; - code unreachable.**
 - (Not error but mistake) in duplicate case **a and b are initialized instead of x and y.**
-

Q5. Given an integer choice denoting the choice of the user and a list containing the single value R or two values L and B depending on the choice.

If the user's choice is 1, calculate the area of the circle having the given radius(R).

Else if choice is 2, calculate the area of the rectangle with given length(L) and breadth(B).

For example:-

Input:

choice = 1,

R = 5

Output: 78.53981633974483

Explanation: The choice is 1.

So we have to calculate the area of the circle.

Input:

choice = 2,

L = 5, B = 10

Output: 50

Explanation: Here we have to calculate the area of the rectangle.

You need to read input and write a program using switchCase() which takes choice and the single value R or the two values L and B, as input parameters. It should return area of the desired geometrical figure.

Note: Use Math.PI for the value of pi.

```
A) import java.util.Scanner;
public class saketh {
public static void main(String args[]) {
Scanner input = new Scanner(System.in);
System.out.println("1)Area of circle\n2)Area of rectangle.\nEnter your choice :");
int a = input.nextInt();
switch (a) {
case 1:
System.out.println("Enter radius of circle:");
double R = input.nextInt();
double area = Math.PI*Math.pow(R , 2);
System.out.println(area);
break;
case 2:
System.out.println("Enter length of rectangle:");
int L = input.nextInt();
System.out.println("Enter breadth of rectangle:");
int B = input.nextInt();
int area1 = L*B;
System.out.println(area1);
break;
default :
System.out.println("Your choice should be 1 or 2 only");
}
}
}
```