Control Structure :- Loop.

Loop →

432 → 234

3 times

65892

Syo Hello → 1000 → for Loop

Syo Hello

Hello   while

Hello   do while

Loops :-

— 10, 20, 30, 40, 50

For :- already know the count (how many times want to execute the stmts)

While :- on the basis of cond-true, $! < 100 \rightarrow 9, 99$

→ 432 56 → Loop $\xrightarrow{\text{stop}}$ > 0

do While :-

When we want to execute the stmts atleastone, without checking anycondition.

foreach : used for Arrays.

$\frac{1}{=}$ 10

Sys (1); ✓

Cond check

For :- Syntax

int a;
int b=1 ;

Keyword

for (a=1 ;
{ For (intilisation; condition; inclded {b=1 ;
= int c=1;
}

var1

int a=1; or int a.;

For (int i=1 ; i <= 5 ; i++)
{
a =1
1
var2

}

```
//case1: Declare and init. var inside the for loop block
    for(int i=1;i<10;i++) {

    }

    // System.out.println(i);          = // throws an error

     //Case2:
    int a=1;
    for(a=1;a<=10;a++) {

    }

    System.out.println(a);          → Can access a outside the Loop

    //case 3:
    int c;
    for(c=1;c<=10;c++) {

    }
    System.out.println(c);          → Can access outside the Loop.
```

$\underline{\underline{5}}$ Hello

$\overset{n}{i} <= 5 \rightarrow 1,2,3,4,5$

$\overset{\cdot}{i} < 6 \rightarrow 1,2,3,4,5$

Step1 $\rightarrow$ $\overset{\cdot}{i} = 1$

Step2 $\rightarrow$ ck condition

$i <= 70 \rightarrow$ Yes
true

① ② true $\overset{\text{④}}{}$ $\underline{i = 2}$

```
for(int i=1;i<=70;i++) {
    System.out.println("Hello...");
}
```

$\rightarrow$ ③

$\underline{i = 1}$

Step3 $\rightarrow$ print the stmt.

Hello

$1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 2 \rightarrow 3$

$2 <= 70 - $ Hello

$3 <= 70 - $ "

4

$5,$

1 - Hello
2
3
4
5
6
7
.
.
1
70

Loop ⎰ print ( ) →
      ⎱ println ( ) →

* * * * *   →   print ( )

*
*
*   ⎱ println

1 - 100 → counting

even Nos.

if (i % 2 == 0) {

3

→ 2 4 6 8 10 12 14 16 18 20

→ 2 * 1 = 2

2 * 2 = 4

2 * 3 = 6

2 * 4 = 8

2 * 10 = 20

```
   ①        (2) a    ④
for(int i=1;i<=20;i++) {
        if(i%2==0) {
    (3 System.out.println(i);
        }
    }
```

20 times

Stp1 → i = 1

2 → 1 <= 20 → true

3 → if (1% 2 == 0)

false ←

4 → i++ → 2

2 → 2 <= 20 → true

if (2·/· 2 == 0)

print ← → true

#A B C D $\rightarrow$ print

2. Sum of numbers $\rightarrow$ $1 \rightarrow 10$

$$1 + 2 + 3 + 4 + \cdots\cdots 10 \Rightarrow$$

Ans Sum is $\rightarrow =$