For - loop :-

Ans:

(Ex PGM):-

```
numbers = [1, 2, 3, 4, 9, 16]
b = []
for i in numbers:
    b. append (i**2)
    print (b)
```

o/p:

```
[1]
[1, 4]
[1, 4, 9]
[1, 4, 9, 16]
[1, 4, 9, 16, 81]
[1, 4, 9, 16, 81, 256].
```

For each:-

Ex pgm:-

seq = [50 , 25 , 40]

lst = [ ]

for x in seq:

lst . append (x+1)

Map (lamda x)
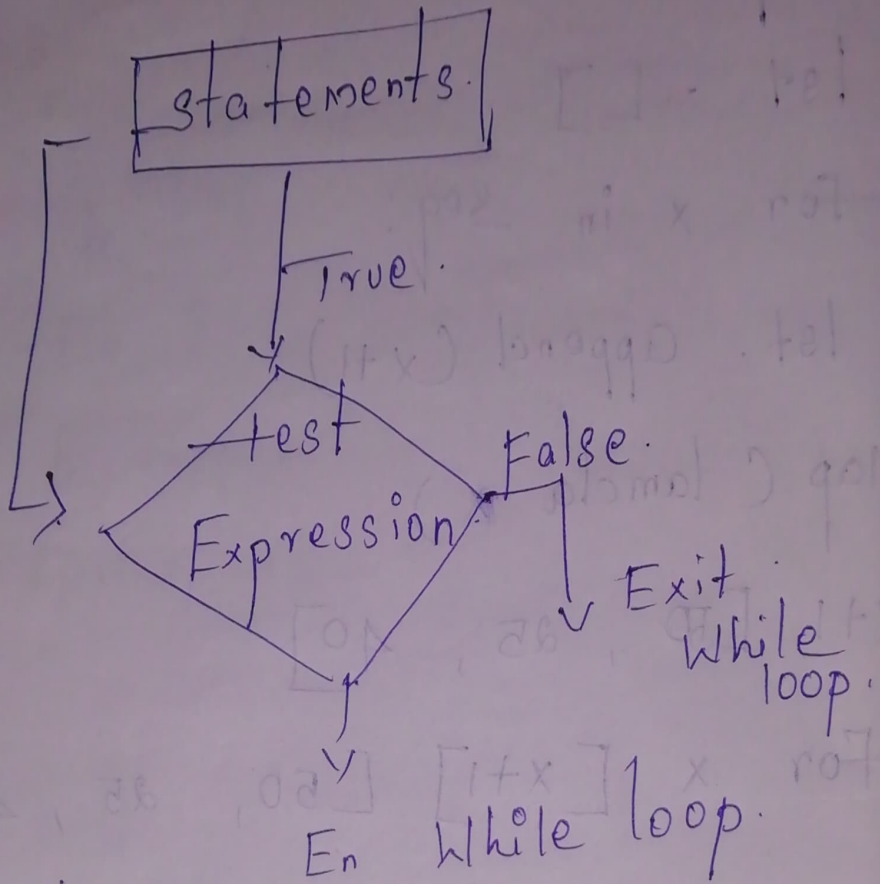
x+1, [50 , 25 , 40]

for x [x+1] [50, 25, 40]

O/P:

51

26

41,

While -loop:-

```
          [statements]
               |
               | True
               ↓
            /test\
           /Expression\ ___ False
           \          /        |
            \        /         ↓ Exit
             \      /           While
              \    /              loop.
               ↓
        En   while loop.
```

Ex pgm:-

```
x = 1
while x < 9:
    print (x)
    x = x + 1
    if x == 3:
        continue
```

O/P

1,
2
3
4
5
6
7
8 //

Do - While :-

Syntax :

↓ Do

condition
True → Code block

↓

Condition

↓

condition
false.
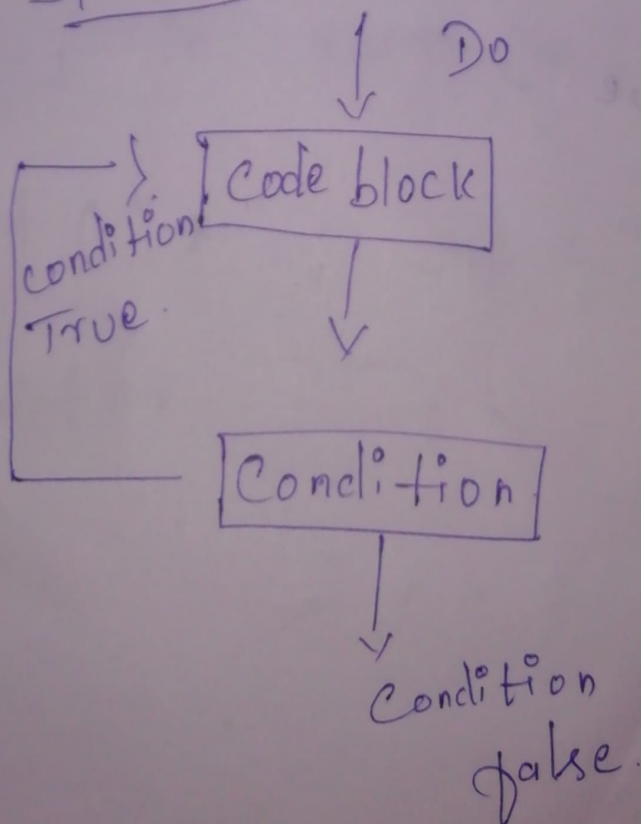
Ex pam:

Do- While:

```
n=1
While True:
if n>5:
break
else:
    Print (n)
    n=n+1
```

O/P:

True

① ★   → rows

   ★   ★

Colom ★ ★ ★

  ★ ★ ★ ★

  ★ ★ ★ ★ ★
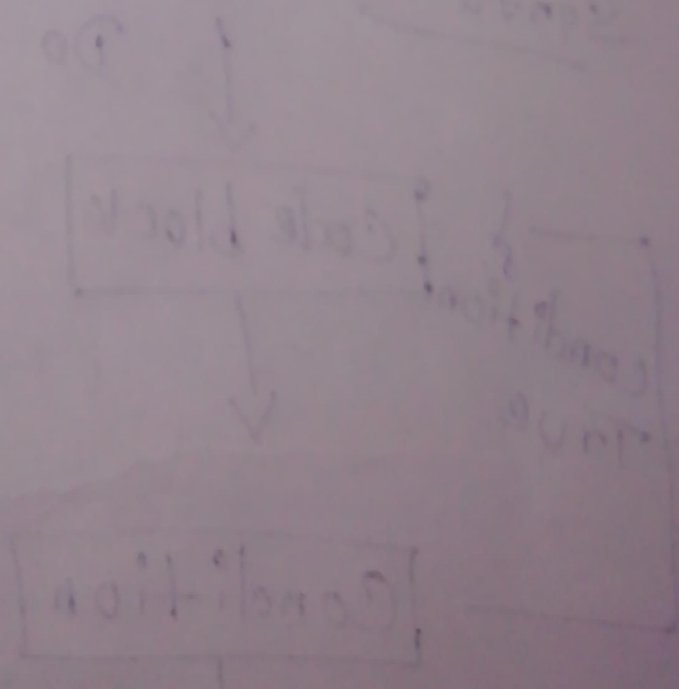
Ans;

Ex:

rows = int (input ("enter the

                  row value"))

for i in range (*, rows+*):

for i in range (*, i+*);

print ("*", end = " ")

print ()

O/P:

Enter the no. of
        rows :.

      ★
   ★   ★
   ★   ★   ★
   ★   ★   ★   ★
   ★   ★   ★   ★   ★.

②
            1
   1   ★
   1   ★   3
   1   ★   3   ★   ★
   1   ★   3   ★5
   1   ★   3   ★5   ★

For b in range (h, a ...

print (b, end=' ')

print()

O/P: How many numbers are there b.

1

1 *
1 * 3
1 * 3 *
1 * 3 * 5

1 * 3 * 5 *

③ 1

2   2

: 3   3   3

4   4   4   4

5   5   5   5   5

rows

```
n = int(input("Enter the number of rows: "))

For i in range (1, n+1):

For j in range (1, i+1):

print (j, end = " ")

print ()
```

o/p:

Enter the no. of rows:

5

```
1
2 2
3 3 3
4 4 4 4
5 5 5 5 5
```

①

	0	1	2	3	4
0	1	1	1	1	1
1	2	2	2	2	2
2	3	3	3	3	3
3	4	4	4	4	4
4	5	5	5	5	5

sol:

```
num = int (input ("enter the
           number of rows."))
for row in range (num) :
    for colums in range (row+1) :
        print (val, end = " ")
    print ( )
```

o/p:

Enter the no. of 5

```
1   1   1   1   1
2   2   2   2   2
3   3   3   3   3
4   4   4   4   4
5   5   5   5   5
```

5]
```
1  2  3  4  5
1  2  3  4  5
1  2  3  4  5
1  2  3  4  5
1  2  3  4  5
```

Sol:

```
num = (input("Enter the number
                        of rows"):)
for row in range(num):
    for colum in range(row+1):
        print(row):
print(colum):
```

O/P:-
```
1  2  3  4 5
1  2  3  4 5
1  2  3  4 5
1  2  3  4 5
1  2  3  4 5
```