

DAY-13

SEPTEMBER-22

1. Write a program to print the pattern

```
*  
  
* *  
  
* * *  
  
* * * *  
  
* * * * *
```

```
CODE:   for   i   in  
range(1,6,1):   for j in  
range(5,i,-1):   print("  
",end="")   for k in  
range(1,i+1,1):  
print("*",end="   ")  
print()
```

OUTPUT:

```
*  
  
* *  
  
* * *  
  
* * * *  
  
* * * * *
```

* * * * * Manual tracing: i = 1,2,3,4,5

Whenever i=1

j=(5,i,-1)=5,4,3,2

k=(1,i+1,1)=1 it prints 4

spaces and 1 star. For i=2

j=5,4,3 k=2

For i=3 j=5,4 k=3

For i=4 j=5 k=4

For i=5 j=0 k=5

2. Write a program to print

*

* *

* * *

* * * *

* * * * *

* * * *

* * *

* *

```
* Code: for i in range(1,6,1):    for j in
    range(1,i+1,1):        print("*",end=" ")
    print()
```

```
for x in range(1,5,1):
```

```
for y in range(5,x,-1):
```

```
print("*",end=" ")
```

```
print() Output:
```

```

*

* *

* * *

* * * *

* * * * *

* * * *

* * *

* *

*

```

3. Write a program to print

```

*           *
**          **
***         ***
****        ****
*****       *****
*****       *****
***         ***
**          **
*           *

```

Code: for i in range(1,6,1):

```

print(" "*i,end="")  print("
"*(2*(5-i)),end="")
print(" "*i,end="")
print("")

```

```
for j in range(4,0,-1):  
    print(" "*j,end="")    print(" "  
    *(2*(5-j)),end="")  
    print(" "*j,end="")  
    print("")
```