Q:-

→ main ( )
{ int i, j ;

for (i = 1; i <= 5; i++, printf ("\n"))

for (j = 1; j <= i; j++)

printf ("%d", i);

}

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

→ main ( )
{ int i, j ;

for (i = 1; i <= 5; i++, printf ("\n"))

for (j = 1; j <= i; j++)

printf ("%d", j);

}

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

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

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

→ main ( )

{ int i, j ;

for (i = 1; i <= 5; i++, printf ("\n"))

for (j = 1; j <= 6 - i; j++)

printf ("%d", j);

}

for (i = 1; i <= 5; i++,)
for (j = 1; j <= i; j + 1)

```
1
2 3
4 5 6
a 5 6
ago 9 10
```

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

#.PATTERNS =>

-> main ( )

```
{ int i, j, m;    // m -> No of rows to print
    printf ("Enter the value of m: ");
    scanf ("%d", &m);
    for (i=0; i<m; i++, printf ("\n"))
    for (j=0; j<=i; j++)
        printf (" * ");
}
```

-> main ( )

```
{
    int i, j, m;
    printf ("Enter the number of rows: ");
    scanf ("%d", &m);
    for (i=m; i >=1; i--, printf("\n"))
    for (j=1; j<=i; j++)
        printf (" * ");
}
```

-> main (.)

```
{
    int m, i, j, k;
    printf ("Enter the no of rows: ");
    scanf ("%d", &m);
    for (i=1; i<=m; i++)
    {
        for (j=i; j<m; j++)
        { printf (" "); }
        for (k=1; k<=(2*i-1); k++)
        {
            printf ("*");
        }
    } printf ("\n");
```

```c
-> main ()
{
    int i, j, k, rows;
    printf ("Enter no of rows: ");
    scanf ("%d", &rows);
    for (i = 0; i < rows; i++)
    {
        for (j = 0; j < rows - i - 1; j++)
        {
            printf ("  ");
        }
        for (k = 0; k < 2*i + 1; k++)
        {
            if (k == 0 || k == 2*i)
            {
                printf (" * ");
            }
            else if (i == rows - 1)
            {
                printf (" * ");
            }
            else
            {
                printf ("  ");
            }
        }
        printf ("\n");
    }
}
```

Enter no
in -> rows of rag
rows -> i
columns -> j

O/P:-
Enter no of rows: 5

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

```c
-> main ()
{ int m, i = 1, j;    // i - rows; j - columns
  printf ("Enter no of rows: ");
  scanf ("%d", &m);

  while (i <= m)
  {
      j = m;
      while (j > i)
      {
          printf (" ");
          j --;
      }
      printf (" * ");
      j = 1;
      while (j < (i-1)* 2)
      {
          printf (" ");
          j ++;
      }
      if (i == 1)
      {
          printf ("\n");
      }
      else
      {
          printf (" * \n");
      }
      i ++;
  }
  i = m - 1;
  while (i >= 1)
  {
      j = m;
```

```c
while (j > i)
{
    printf ("   ");
    j--;
}
printf (" * ");
j = 1;
while (j < (i-1) * 2)
{
    printf ("   ");
    j++;
}
if (i == 1)
{
    printf ("\n");
}
else
{
    printf (" *   \n");
}
i--;
}
}
```