

Experiment no – 04(a)

Aim: a. Write a program to print the pattern of asterisks as shown below :

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

Algorithm:

- i. Display * and go to new line
- ii. Display * * and go to new line.
- iii. Display * * * and go to new line.
- iv. Display * * * *

Code:

```
#include<stdio.h>  
  
int main()  
{ printf("03-sarabjeetsingh.\n");  
  int i, j, n;  
  /* for used as row wise */  
  for(i=1; i<=4; ++i)  
  {  
    /* for used as column wise */  
    for(j=1; j<=i; ++j)  
    {  
      printf("*");  
    }  
    printf("\n");  
  }  
  return 0;  
}
```

Output:

```
03-sarabjeetsingh.  
*  
**  
***  
****  
  
...Program finished with exit code 0  
Press ENTER to exit console.
```

Experiment no – 04(b)

Aim: Write a program to print the pattern of asterisks as shown below :

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

Algorithm:

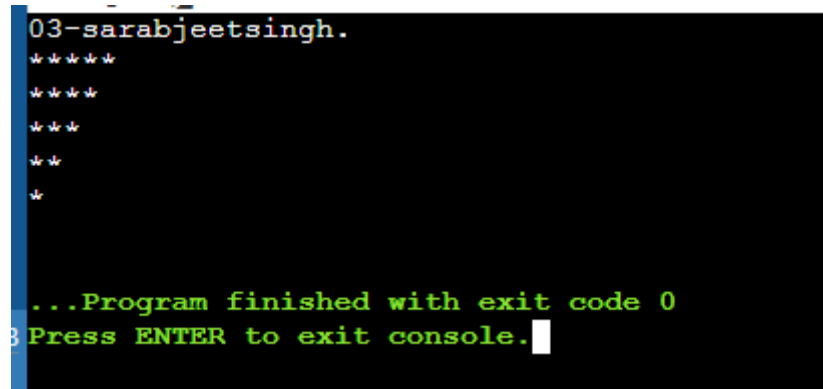
- i. Display ***** and go to new line
- ii. Display * * * * and go to new line.
- iii. Display * * * and go to new line.
- iv. Display * * and go to new line.
- v. Display *

Code:

```
#include<stdio.h>  
  
int main()  
{ printf("03-sarabjeetsingh.\n");  
  
    int i, j;  
  
    /* for used as row wise */  
    for(i=5; i>=1; i--)  
    {  
  
        /* for used as column wise */  
        for(j=1; j<=i; j++)  
        {  
            printf("*");  
        }  
        printf("\n");  
    }  
}
```

```
}  
return 0; }
```

Output:



```
03-sarabjeetsingh.  
*****  
****  
***  
**  
*  
  
...Program finished with exit code 0  
Press ENTER to exit console.
```

Experiment no – 04(c)

Aim: Write a program to print Floyd's Triangle.

Algorithm:

- i. Create variables that hold rows and column values as i and j. Take a number to display the rows as num and set the variable k to 1 as its initial value.
 - ii. Use nested for loops:
 - a. Outer for loop starts its iteration i = 1 up to n rows.
 - b. Inner for loop starts its iteration from j = 1 up to (j <= i).
 - iii. Print the values of k.
 - iv. Increment k by 1 or k = k + 1.
- v. Jump to newline after each iteration of the inner for loop.
 - vi. Stop

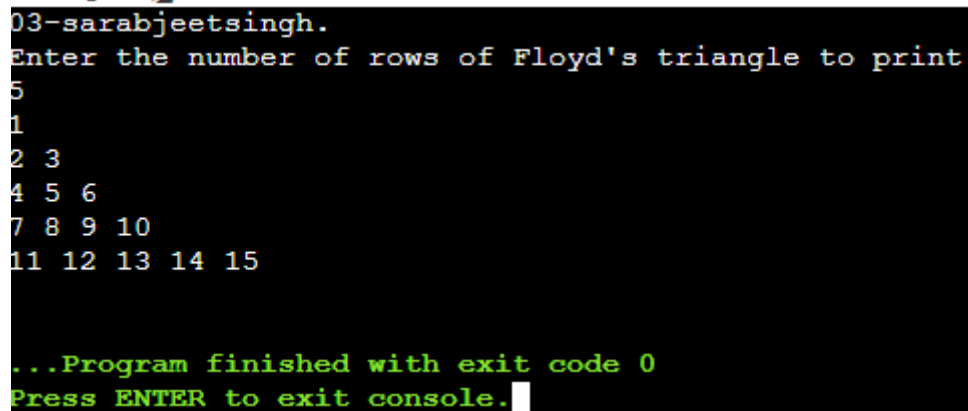
Code:

```
#include <stdio.h>  
  
int main()  
{ printf("03-sarabjeetsingh.\n");  
  int n, i, c, a = 1;
```

```
printf("Enter the number of rows of Floyd's triangle to print\n");
scanf("%d", &n);

for (i = 1; i <= n; i++)
{
    for (c = 1; c <= i; c++)
    {
        printf("%d ", a); // Please note space after %d
        a++;
    }
    printf("\n");
}
return 0;
}
```

Output:



```
03-sarabjeetsingh.
Enter the number of rows of Floyd's triangle to print
5
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15

...Program finished with exit code 0
Press ENTER to exit console.
```