**Lab 2**

1.  What is the output of the following code?

    ```
    int a=9, b=6;

    a++;

    a=a+b--;

    a=a+(--b);

    if(a%2==0)

            printf("a is an even");

    printf("Sum a and b is : %d", a+b) ;
    ```

2.  What is the output of the following code?

    ```
    int a=7, b=8;

    a++;

    a=a+(b--);

    --b;

    a--;

    a=(--a)+(--b);

    if(a%2!=0)

                printf("\n a is an odd");

    else

                printf("\n a is an even");

    printf("\na =  %d",a);
    ```

3.  What is the output of the following code?

    ```
    int x=5, y;

    y=x++ + 5;

    printf("x=%d, y=%d\n", x, y);

    y*=6;

    x=y%7;

    printf("x=%d,y=%d,y/x=%d", x, y, y/x);
    ```

4.  What is the output of the following code?

```
int a=18;
for(int i=1; i<=a; i++)
        if(a%i= =0)
                printf("\t  %d", i);
```

5.   What is the output of the following code?

```
for (int i=0; i<5; i++)
{
        for(int j=0; j<=i; j++)
                printf("%d\t", j);
        printf("\n");
}
```

6.   What is the output of the following code?

```
int i=10, s=0;
while(i>0)
{
        if(i%2= =0)
                s+=i;
        else
                if(i>5)
                        s+=2*i;
        i--;
}
printf("s = %d",s);
```

7.   What is the output of the following code?

```
int a=18, i=1;
do{
        if(a%i==0)
                printf("\t  %d",i);
        i++;
```

```
} while(i<=a);
```

8. What is the output of the following code?

```c
int a=11, b=16, i=a;
while( i<b )
{
        if(i%2==0)
        {
                printf("\t %d", i);
                break;
        }
        i++;
}
```

9. What is the output of the following code?

```c
int a=10, s=0, i=0;
while( i<a )
{
        i++;
        if(i%2==0) continue;
        else s = s+i;
}
printf("s=%d",s);
```

10. What is the output of the following code?

```c
int i=1, s=0;
while(1)
{
        s=s+i++;
        if(i%2)
                i=i+2;
        else
```

```
            i=i+1;
        if(i>20)
            break;
    }
    printf("%d",s);
```

11. Write program to draw a solid rectangle of size $m \times n$. Input $m, n$ from keyboard.

    Eg: Input $m = 5, n = 4$

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

12. Write program to draw a hollow rectangle of size $m \times n$. Input $m, n$ from keyboard.

    Eg: Input $m = 5, n = 4$

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

13. Write program to draw a solid right triangle of height $h$. Input $h$ from keyboard.

    Eg: Input $h = 4$

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

14. Write program to draw a hollow right triangle of height $h$. Input $h$ from keyboard.

    Eg: Input $h = 4$

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

15. Write program to draw a solid isosceles triangle of height $h$. Input $h$ from keyboard.

    Eg: Input $h = 4$

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

16. Write program to draw a hollow isosceles triangle of height $h$. Input $h$ from keyboard.

    Eg: Input $h = 4$

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