Assignment 1

(1) Write a program that take two integers from the user and print the results of this equation:
Result = ((num1 + num2) * 3) – 10
Sol:

```
#include <stdio.h>
int main() {
int num1,num2,result=0;
printf("Please enter first integer number");
fflush(stdout);
scanf("%d",&num1);
printf("Please enter second integer number");
fflush(stdout);
scanf("%d",&num2);
result=((num1+num2)*3)-10;
printf("The result is = %d",result);
fflush(stdout);
   return 0;
}
```

(2) Write a program that print your name and your grade in a new line.

```
#include<stdio.h>
int main(){
    printf("Name: Rana \n");
    fflush(stdout);

    printf("Grade: A+ \n");
    return 0;
}
```

(3) Write a program for converting temperature from degrees Celsius to degrees Fahrenheit, given the formula: F = C x 9/5 + 32

```
#include<stdio.h>
int main(){
    printf("please enter degrees");
    fflush(stdout);
    float f,c=0;
    scanf("%f",&c);
    f= (c*(9/5))+32;
    printf("The degree in Fahernheit equal= %f",f);
    return 0;
}
```

(4) Write a program that reads the radius of a circle and calculates the area and circumference then prints the results.

```
#include<stdio.h>
int main() {
    float rad,cir,area=0;
    printf("please enter radius \n");
    fflush(stdout);
    scanf("%f",&rad);
    cir=2*3.14*rad;
    area=3.14*(rad*rad);
    printf("The Circumference = %f \n",cir);
    fflush(stdout);
    printf("The area = %f \n",area);

return 0;
}
```

(5) Write a program to print the ASCII value of a character input by the user.

```c
#include<stdio.h>
int main(){
    printf("please enter character");
    fflush(stdout);
    char z;
    scanf("%c",&z);
    printf("The ASCII CODE  for: %c is %d",z,z);
    fflush(stdout);
    return 0;
}
```

(10) Write a program to make a simple calculator using switch-case. The calculator takes the operation (+ or – or * or /) and takes the two input arguments and print the results.

```
#include<stdio.h>
int main() {
    char s;
    int x,y;
    printf("please enter operator + ,/,*,- \n");
    fflush(stdout);
    scanf("%c",&s);
    printf("please enter first number \n");
    fflush(stdout);
    scanf("%d",&x);
    printf("please enter second number \n");
    fflush(stdout);
    scanf("%d",&y);
    switch(s){
    case '+':
        printf("The sum = %d",x+y);
        fflush(stdout);
        break;
    case '-':
            printf("The Difference = %d",x-y);
            fflush(stdout);
            break;
    case '/':
            printf("The division = %d",x/y);
            fflush(stdout);
            break;

    case '*':
            printf("The product = %d",x*y);
            fflush(stdout);
            break;
    default:
        printf("Please enter a valid input");
```

```
        fflush(stdout);
        break;
    }


return 0;
}
```

(14) Write a program to display English alphabets from A to Z.

```
#include <stdio.h>

int main()
{

    for( int i=65 ; i<=90 ; i++ ){
        printf("ASCII value of character %c = %d
\n", i, i);
    }

    return 0;
}
```

(18) Write a program to display half pyramid using stars pattern.

```
#include <stdio.h>
#include <string.h>
int main()
{  char stars[5]="";
   for(int r=0;r<5;r++){
     printf("%s \n",stars);
     fflush(stdout);
    strcat(stars, "*");
   }

    return 0;
}
```

(19) Write a program to display inverted half pyramid using stars pattern.

```
#include <stdio.h>
#include <string.h>
int main()
{  char stars[5]="*****";

   for(int r=0;r<5;r++)
   {
     printf("%s \n",stars);
     fflush(stdout);
     for(int i=0;i<5;i++)
     {
     stars[i]=stars[i+1];
      }
   }
    return 0;
}
```

(20) Write a program to display a full pyramid using stars pattern.

```
#include <stdio.h>
#include <string.h>
int main()
{
   printf("    %s \n","*");
   printf("   %s \n","***");
   printf("  %s \n","*****");
   printf(" %s \n","*******");
   printf("%s \n","*********");
    return 0;
}
```