PROGRAMMING IN C

1.write a c program to check whether a number is divisible by 5 and 11.

```
#include <stdio.h>

int main() {
   int a;
   printf("Enter a number: \n");
   scanf("%d",&a);
   if (a%5==0 && a%11==0) {
      printf("The number is divisible by 5 and 11\n");
   }
   else {
      printf("The number is not divisble\n");
   }

   return 0;
}
```

OUTPUT:

Enter a number:

55

The number is divisible by 5 and 11

2. Write a c program to calculate simple interest.

```
#include <stdio.h>

int main() {
   float principal, rate, time, simple_interest;


   printf("Enter principal amount: ");
   scanf("%f", &principal);


   printf("Enter rate of interest (in %): ");
   scanf("%f", &rate);


   printf("Enter time period (in years): ");
   scanf("%f", &time);


   simple_interest = (principal * rate * time) / 100;


   printf("Simple Interest = %.2f\n", simple_interest);

   return 0;
}
```

Output:

```
Enter principal amount: 5000
```

Enter rate of interest (in %): 7

Enter time period (in years): 3

Simple Interest = 1050.00

3.write a c program to make a simple calculator.

```
#include <stdio.h>

int main() {
   char operator;
   float num1, num2, result;

   // Input first number
   printf("Enter first number: ");
   scanf("%f", &num1);

   // Input operator
   printf("Enter an operator (+, -, *, /): ");
   scanf(" %c", &operator);

   // Input second number
   printf("Enter second number: ");
   scanf("%f", &num2);

   // Perform calculation based on operator
   switch(operator) {
      case '+':
         result = num1 + num2;
         printf("%.2f + %.2f = %.2f\n", num1, num2, result);
```

```
            break;

        case '-':
            result = num1 - num2;
            printf("%.2f - %.2f = %.2f\n", num1, num2, result);
            break;

        case '*':
            result = num1 * num2;
            printf("%.2f * %.2f = %.2f\n", num1, num2, result);
            break;

        case '/':
            if(num2 != 0) {
                result = num1 / num2;
                printf("%.2f / %.2f = %.2f\n", num1, num2, result);
            } else {
                printf("Error! Division by zero is not allowed.\n");
            }
            break;

        default:
            printf("Error! Invalid operator.\n");
    }

    return 0;
}
```

Output:

Enter first number: 60

Enter an operator (+, -, *, /): +

Enter second number: 40

60.00 + 40.00 = 100.00

4.write a c program to print hello world

```
#include <stdio.h>

int main() {
   // Write C code here
   printf("HELLO WORLD");

   return 0;
}
```

OUTPUT:

HELLO WORLD

5.write a c program to print basic info.

```
#include <stdio.h>

int main() {
   int name,sapid,batch;

   printf("NAME: KUDRAT SINGH\n");
   printf("sapid:590027790\n");
   printf("batch: 55");
```

```
    return 0;
}
```

Output:

NAME: KUDRAT SINGH

sapid:590027790

batch: 55

6.write a c program to print area of circle

```
#include <stdio.h>
#define PI 3.14159

int main() {
    float radius, area;

    // Input radius
    printf("Enter the radius of the circle: ");
    scanf("%f", &radius);

    // Calculate area
    area = PI * radius * radius;

    // Print area
    printf("Area of the circle = %.2f square units\n", area);

    return 0;
}
```

Output:

Enter the radius of the circle: 8

Area of the circle = 201.06 square units

7. write a c program to convert Celsius into farenheit.

```
#include <stdio.h>

int main() {
   float celsius, fahrenheit;

   printf("Enter temperature in Celsius: ");
   scanf("%f", &celsius);

   // Conversion formula: °F = (°C × 9/5) + 32
   fahrenheit = (celsius * 9.0 / 5.0) + 32;

   printf("%.2f°C is equal to %.2f°F\n", celsius, fahrenheit);

   return 0;
}
```

Output:

Enter temperature in Celsius: -40

-40.00°C is equal to -40.00°F

8.write a c program to convert farenheit into Celsius.

```
#include <stdio.h>

int main() {
```

```
    float fahrenheit, celsius;

    printf("Enter temperature in Fahrenheit: ");
    scanf("%f", &fahrenheit);

    celsius = (fahrenheit - 32) * 5 / 9;

    printf("%.2f°F is equal to %.2f°C\n", fahrenheit, celsius);

    return 0;
}
```

Output:

```
Enter temperature in Fahrenheit: -40
-40.00°F is equal to -40.00°C
```

9.write a c program to swap two numbers.

```
#include <stdio.h>

int main() {
    int num1, num2, temp;

    printf("Enter first number: ");
    scanf("%d", &num1);

    printf("Enter second number: ");
    scanf("%d", &num2);
```

```
    printf("Before swapping: num1 = %d, num2 = %d\n", num1, num2);

    // Swapping using a temporary variable
    temp = num1;
    num1 = num2;
    num2 = temp;

    printf("After swapping: num1 = %d, num2 = %d\n", num1, num2);

    return 0;
}
```

Output:

```
Enter first number: 60
Enter second number: 40
Before swapping: num1 = 60, num2 = 40
After swapping: num1 = 40, num2 = 60
```

10.write a program to print the greatest of two number.

```
#include <stdio.h>

int main() {
    int num1, num2;

    printf("Enter first number: ");
    scanf("%d", &num1);

    printf("Enter second number: ");
```

```
    scanf("%d", &num2);

    if (num1 > num2) {
        printf("%d is the greatest number.\n", num1);
    } else if (num2 > num1) {
        printf("%d is the greatest number.\n", num2);
    } else {
        printf("Both numbers are equal: %d\n", num1);
    }

    return 0;
}
```

Output:

Enter first number: 100

Enter second number: 1000

1000 is the greatest number.