

## **DSA Programming Assignment-1**

1. Write a C program to print the following lines:

*Work is worship, Duty is God  
Service of mankind is Service to God*

2. Write a C program which requests the user to enter a number. The number and the square of the number are then printed on the same line. For example, if 4 is entered, the program outputs

*Number=4      Square of Number=16*

3. Input the basic salary of an employee of an organization through the keyboard. His dearness allowance (DA) is 40% of basic salary, and house rent allowance (HRA) is 20% of basic salary. Write a C program to calculate his gross salary.
4. The distance between two cities (in km.) is input through the keyboard. Write a C program to convert and print this distance in meters, feet, inches and centimeters.
5. Input the marks obtained by a student in five different subjects through the keyboard. Write a C program to find out the aggregate marks and percentage marks obtained by the student. Assume that the maximum marks that can be obtained by a student in each subject is 100.
6. Temperature of a city in Fahrenheit degrees is input through the keyboard. Write a C program to convert this temperature into Centigrade degrees.
7. The length & breadth of a rectangle and radius of a circle are input through the keyboard. Write a C program to calculate the area & perimeter of the rectangle, and the area & circumference of the circle.
8. Two numbers are input through the keyboard into two locations A and B. Write a C program to interchange the contents of A and B. (Hint: i. Using third location ii. Without using third location)
9. If a five-digit number is input through the keyboard, write a C program to calculate the sum of its digits. (Hint: Use the modulus operator '%')
10. If a five-digit number is input through the keyboard, write a C program to reverse the number.
11. If a four-digit number is input through the keyboard, write a C program to obtain the sum of the first and last digit of this number.
12. In a town, the percentage of men is 52. The percentage of total literacy is 48. If total percentage of literate men is 35 of the total population, write a C program to find the total number of illiterate men and women if the population of the town is 80,000.
13. If a five-digit number is input through the keyboard, write a program to print a new number by adding one to each of its digits. For example if the number that is input is 12391 then the output should be displayed as 23402.