Topics:
C basics , Input output, operators, expressions, typecasting

A1.1
Print the ASCII value of a character given as input

A1.2
Read diameter from user and find the area and perimeter of a circle

A1.3
Read Integer N and print the First 3 Powers (i.e. N, N^2, N^3)

A1.4
Read two integers (say, x and y) from the user and print the value of x/y. What happens when y is given as 0?

A1.5
Swap the values of two integer variables.

a. Using a temporary variable
b. Without using any temporary variables

A1.6
Create one variable of all different datatypes you know

a. Display the sizes of all the variables
b. Print each variable using proper format specifiers
c. Print memory address of all variables
d. Create a pointer variable for each type and store the address of the variables in corresponding pointer variables
e. Print the value of the actual variable by the use of pointer variables

A1.7
Use limits.h (if you don't know what this is, then do a google search and check this) to display the limiting values for different data types

A1.8
Take three integer variables (say x, y and z)as input from the user, and print the values of the following

a. Logical AND of the following: x and y, x and y and z, y and z
b. Logical OR of the following: x or y, x or (y or z), (x or y) or z
c. Logical not of all three variables
d. x and y or z, x and (y or z), x or y and z, etc.

Give different values of x, y and z and understand the outputs. Make sure the enter different combination of 1, -10 and 0 values

A1.9

Take three integer variables (say x, y and z)as input from the user, and print the values of the following, (guess the outputs of each of the expression before getting the output for different input values)

a. x + y * z / 4 % 2 - 1
b. x>y ? x>z ? x:z : y>z?y:z
c. Use conditional operator (as above) to find the minimum of x, y and z
d. Print the memory addresses of all three variables
e. ++x && ++y && ++z
f. x || y++ && z++
g. x>y
h. x>y && z
i. x>y || z

Give different values of x, y and z and understand the outputs. Make sure the enter different combination of 1, -1 and 0 values

A1.10

Create a user defined datatype (at least three different members should be present) using structure concept and do the following

a. display the size of the new type
b. Create three variables
c. One variable should be initialized while declaring
d. Values for the second variable should be assigned by taking input from the user
e. Copy the value of the first variable to the third one
f. Print the values of all the variables