

LAB 6

C Programs :Getting Started

(From 20 / 08 / 2015 to 29 / 08 / 2015)

- 1) To open the Turbo C++ IDE for writing the C program, follow the following steps:

Open **Bloodshed Dev-C** Compiler

Using **File -> New -> Source file** → to open new file

Write following Basic C program in Dev C

```
#include<stdio.h>
```

```
void main()
```

```
{
```

```
printf("Hello JUET");
```

```
}
```

- Save program with basic.c: File -> Save as (Ctrl + F12)
- Compile the program (Ctrl + F9)
- Run (Execute) the Program (Ctrl + F10)
- Try to make modifications in it like write comment on each line by using //, Change void to int, comment the header file etc.

Note: After modifications, save your program using File -> Save (Ctrl + s) and recompile your program and then execute it as explained above.

- 2) Write a Program (WAP) to add two numbers and display/print the sum
- 3) Write a C program that takes two numbers as an input and print the average them.
- 4) Write program that takes 3 digit number as an input. Program should compute and display the sum of digits in a number.
- 5) Write a C program to print the Quotient and Remainder of a number which is divided by another smaller number than dividend.

- 6) Write a C program to print the sum of n natural numbers.

The sum of first 'n' natural no`s-

$$1+2+3+\dots+n=n*(n+1)/2$$

- 7) Write a C program to print the sum of the square of n natural numbers.

the sum of squares of first 'n' natural no`s-

$$1^2+2^2+3^2+\dots+n^2=n*(n+1)*(2n+1)/6$$

- 8) Write a C program to print the sum of the cube of n natural numbers.

The sum of cubes of first 'n' natural no`s-

$$1^3+2^3+3^3+4^3+\dots+n^3=(n^2*(n+1)^2)/4$$

- 9) Write a C program to determine the amount of loss (in percentage) a seller has made, if the cost price and selling price of an article are entered by the user.

- 10) Write a C program to determine the amount of compound interest to be paid by the borrower, if the principal amount, rate of interest, and tenure are entered by the user.

- 11) Write a C program to find out that given number is odd or even.

- 12) Write a C program to convert a given number of days into months and days.

- 13) Write a C program to find the gross salary of an employee

$$\text{Gross salary} = \text{base salary} + \text{DA} + \text{HRA} + \text{Bonus}$$

DA= 40 % of the base salary, HRA=80% of DA, and Bonus= 25% of HRA.

Ask user to enter the base salary only.