JAYPEE UNIVERSITY OF ENGINEERING & TECHNOLOGY, GUNA
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
Computer Programming Lab (14B17CI171)
B.Tech. (CSE/ECE/MECH/CE/CHE) Semester-I

Lab Experiment-5

C Programs: Getting Started

Create a folder at any location to write programs files using text document (note pad).

- Create a new **text file** with **.txt** extension and write a program using C language.
- Convert the **text file** into **source file** by saving the text file with **.c** extension by following the sequence of File · Save As · Save As Type · All Files
- You can also create a source file directly; just type the file name with **.c** extension.
- To start working with TDM-GCC compiler, go to **Start icon** or press **Window+R** keys and type **cmd** and press **Enter Key**. It will show TDM-GCC compiler with black screen where the programs are compiled and executed.
- Go to created folder once again, find and copy **location of the folder** in which programs are written.
- Go to TDM-GCC compiler and type **cd** in and paste **location of the folder** and press **Enter Key.**
- Type **gcc -o name of object file name of source file with .c** and press **Enter Key** to compile your program and to convert **source file** (with **.c** extension**)** into **object/executable file** (with **.exe** extension). Keep name of object file same as name of source file to avoid any confusion. However, both the files can have different names also. Suppose you want to compile a source file named as **hello.c** then either type **gcc –o hello hello.c** or **gcc hello.c –o hello** and press **Enter Key.**
- To execute your program, type name of **object file** once again without extension and press **Enter Key.** It will show the output the program if program is error free.
- If program contains any error, go to source file once again and edit and save the program and compile the program once again by typing **gcc -o name of object file name of source file with .c** and press **Enter Key.**
- To see all program files (text files with **.txt**, source files with **.c** and executable files with **.exe**) available in your folder type **dir** and press **Enter Key.**

```
#include<stdio.h>
void main()
{
printf("Hello JUET");
}
```

Practice

Q1. Write a Program (WAP) to add two numbers and display/print the sum.

Q2. Write a C program that takes two numbers as an input and print the average them.

Q3. Write a C program to convert a given number of days into months and days.

Q4. Temperature of a city in Fahrenheit degrees is input through the keyboard. Write a C program to convert this temperature into Centigrade degrees.
[C = (F – 32) / 1.8]

Q5. 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. (Hint: 1 meter = 3.281 feet)

Q6. 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+.....+n^3=(n^2 * (n+1)^2)/4

Q7. Write a C program to print the sum of n natural numbers. The sum of first 'n' natural no`s - 1+2+3+.....+n=n*(n+1)/2

Q8. 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+.....+n^2=n*(n+1)*(2n+1)/6

Q9. Write a C program to find the gross salary of an employee
Gross salary = base salary + DA + HRA+Bonus
DA= 40 % of the base salary, HRA=80% of DA, and Bonus= 25% of HRA.
Ask user to enter the base salary only.

Q10. 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.

Q11. If a three-digit number is input through the keyboard. Write a C program to reverse the number.

Q12. Write program that takes 3 digit number as an input. Program should compute and display the sum of digits in a number.

Q13. 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.

Q14. Two numbers are input through the keyboard into two locations C and D. Write a C- program to interchange the contents of C and D.
(a) using third variable (b) without using third variable