<b>Program-1:</b> Write an assembly language program to print a character.
Algorithms: 1. Start the program 2. Move the character in dl register 3. Display the character 4. Stop the program
Source Code:
Input: Output:
<b>Program-11:</b> Write an assembly program to enter two 8 bit numbers and print their sum which is less than 9.
Algorithms:
<ol> <li>Start the program</li> <li>Input first number and move to bl register</li> <li>Input second number and move to cl register</li> <li>Subtract 30h from each register</li> <li>Add two register and put it on bl register</li> <li>Add 30h to bl register</li> <li>Move the character in dl register</li> <li>Display the bl register</li> <li>Stop the program</li> </ol>
Source Code:
Input:
Output:

### Lab-1

- 1. Write an assembly program to print a character.
- 2. Write an assembly program to print a number.
- 3. Write an assembly program to print several characters with new line.
- 4. Write an assembly program to print several digits with new line.
- 5. Write an assembly program to enter character or digit and display it on the screen with new line.
- 6. Write an assembly program to enter several character or digit and display it on the screen with new line.
- 7. Write an assembly program to print a character or digit using variable.
- 8. Write an assembly program to print a string.
- 9. Write an assembly program to print a string and enter character/digit and display it.
- 10. Write an assembly program to read first, middle, and last initials of a person's name, and display them in left margin.

# <u>Lab-2</u>

- 1. Write instructions to do the following.
  - a. Read a character and display it at the next position on the same line
  - b. Read an uppercase letter and display it at the next position on the same line in lower case
- 2. Write a program to
  - a. display a "?"
  - b. read two decimal digits whose sum is less than 10
  - c. display them and their sum in the next line with an appropriate message.
- 3. write a program to
  - a. prompt the user
  - b. Read first middle and last initials of a person's name
  - c. And display them down the left margin
- 4. Write an assembly program to enter one of the hex digits A-F, and display it on the next line in decimal.
- 5. Write an assembly program to display asterisks (\*\*\*\*\*\*\*\*) ten times with new line.
- 6. Write an assembly program to display to (a) display"?", (b) read three initials,(a,b,c) display them in the middle of an 11 x 11 box of asterisk

#### Lab-3

- 1. Write an assembly program to display different triangle using asterisk and digit.
- 2. Write an assembly program to enter two 8 bit numbers and print their sum which is less than 9.

- 3. Write an assembly program to enter two 8 bit numbers and print their sum which is larger than 9.
- 4. Write an assembly program to enter a number and perform multiplication with itself which less than 9.
- 5. Write an assembly program to enter a number and perform multiplication with itself which larger than 9.
- 6. Write an assembly program to enter two numbers and perform division.

## Lab-4

- 1. Write an assembly program to find larger number between two numbers.
- 2. Write an assembly program to find small number between two numbers.
- 3. Write an assembly program to enter value of Al

If Al contains a negative number, put -1 In Bl;

if Al contains 0, put O In Bl;

if Al contains a positive number, put 1 In Bl..

4. Write an assembly program to enter value of Al

If AL contains 1 or 3, display "o"; if AL contains 2 or 4, display "e".

5. Write an assembly program to enter a character

if it's an uppercase letter, display it.

Otherwise terminate

6. Write an assembly program to enter a character

if it's y or Y, display it.

Otherwise terminate

#### <u>Lab-5</u>

- 7. Write an assembly count-controlled loop program to display a row of 80 stars.
- 8. Write an assembly program to print the following series (for)

987654321

9. Write an assembly program to print the following series (for)

97531

10. Write an assembly program to print the following series (for)

123456789

11. Write an assembly program to print the following series (for)

8642

12. Write an assembly program to print the following series (while)

987654321

#### <u>Lab-6</u>

- 1. Write a program in assembly language to check whether a number is even or odd.
- 2. Write a program in assembly language to load a byte in memory location 8000H and increment the contents of the memory location.
- 3. Write a program in assembly language to swap two numbers.
- 4. Write Assembly program to read ten (10) characters from console.
- 5. Write an Assembly program to read in two decimal inputs and print out the smaller of the two, in decimal.
- 6. Write an Assembly program to calculate the average of three given numbers stored in memory.
- 7. Write an Assembly program in which a procedure converts Hexadecimal value to print its Decimal form on Screen.
- 8. Write an Assembly program to convert Centigrade (Celsius) to Fahrenheit temperature measuring scales.