MAWLANA BHASHANI SCIENCE AND TECHNOLOGY UNIVERSITY

Santosh,Tangail-1902

LAB REPORT

Lab Report No : 05

Lab Report name : Assembly Language-05

Course Title : Microprocessor and Assembly Language Lab

Course Code : ICT- 3106

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Submitted by,

Student Name : Tanvir Ahmed

Student ID : IT-18043

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Dept. of ICT

Submitted to,

S.M.Shamim

Lecturer

Dept of ICT

MBSTU

1.Write an assembly count-controlled loop program to display a row of 80 stars.

Algorithm:

1.Start the program.

2.Initialize ‘cx’ register with the value 80.

3.Create a level named l1.then loop the level and print ‘*’

4.Stop the program.

Source code:

```
.model small
.stack 100h
.data
.code
main proc
 mov cx,80
 mov ah,2
 mov dl,'*'
 l1:
 int 21h
 loop l1
 exit:
 mov ah,4ch
 int 21h
 main endp
end main
```

Output:

2.Write an assembly program to print the following series (for)9 8 7 6 5 4 3 2 1.

Algorithm:

1.Start the program.

2. Initialize 'cx' register with the value 9.

3.create a level named l1,print 57,decrement the value of 'dl' register.Loop the level.

4.Stop the program.

Source code:

```
.model small
.stack 100h
.code
main proc
 mov cx,9
 mov ah,2
 mov dl,57
 l1:
 int 21h
 dec dl
 loop l1

 exit:
 mov ah,4ch
 int 21h
 main endp
end main
```

Output:

3.Write an assembly program to print the following series (for)9 7 5 3 1.

Algorithm:

1.Start the program.

2. Initialize ‘cx’ register with the value 5.

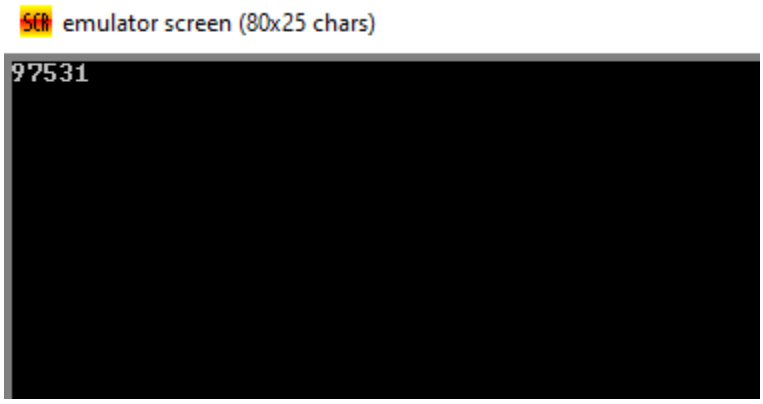
3.create a level named l1,print 57,decrement the value of ‘dl’ register by 2.Loop the level.

4.Stop the program.

Source code:

```
.model small
.stack 100h
.data
.code
main proc
 mov cx,5
 mov ah,2
 mov dl,57
 l1:
 int 21h
 dec dl
 dec dl
 loop l1

 exit:
 mov ah,4ch
 int 21h
 main endp
end main
```

Output:



4.Write an assembly program to print the following series (for)1 2 3 4 5 6 7 8 9.

Algorithm:

1.Start the program.

2. Initialize ‘cx’ register with the value 9.

3.create a level named l1,print 49,increment the value of ‘dl’ register.Loop the level.

4.Stop the program.

Code:

```
.model small

.stack 100h

.data

.code

main proc

mov cx,9

mov ah,2

mov dl,49

l1:

int 21h
```

inc dl

loop l1

exit: mov ah,4ch

int 21h

main endp

end main

Output:

05.Write an assembly program to print the following series (for)8 6 4 2.

Algorithm:

1.Start the program.

2. Initialize ‘cx’ register with the value 4.

3.create a level named l1,print 56,decrement the value of ‘dl’ register.Loop the level.

4.Stop the program

Source code:

.model small

.stack 100h

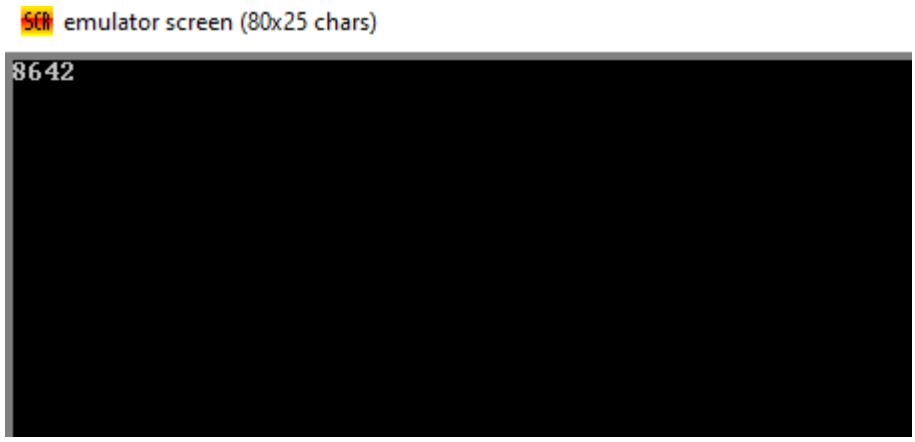
.data

.code

main proc

```
mov cx,4

mov ah,2

mov dl,56

l1:

int 21h

dec dl

dec dl

loop l1

exit:

mov ah,4ch

int 21h

main endp

end main
```

Output:



6.Write an assembly program to print the following series (while) 9 8 7 6 5 4 3 2 1.

Algorithm:

1.Start the program.

2. Initialize ‘dl’ register with the value 57.

3.create a level named while_,print 57,decrement the value of ‘dl’ register. Compare the value of ‘dl’ register with the value 49.If ‘dl’ register’s value is less then 49 then jump to exit level otherwise jump to while_ level.

4.Stop the program

Source code:

```
.model small

.stack 100h

.data

.code

main proc

 mov ah,2

 mov dl,57

 while_:

 int 21h

 dec dl

 cmp dl,49

 jge while_

 jmp exit


 exit:

 mov ah,4ch

 int 21h

 main endp

end main
```

Output: