Q1. Using loop write a program to print numbers from 0 to 9.

<u>Code:</u>

```
dosseg

.model small

.stack 100h

.data

.code

main proc

mov cx,10

mov dx,48

L1:

mov ah,2

int 21h

Add dx,1

Loop L1

mov ah,4ch

int 21h

main endp

end main
```

<u>Output:</u>

```
C:\>MASM P1.ASM;
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987.  All rights reserved.


  51720 + 464824 Bytes symbol space free

     0 Warning Errors
     0 Severe  Errors

C:\>LINK P1.OBJ;

Microsoft (R) Overlay Linker  Version 3.60
Copyright (C) Microsoft Corp 1983-1987.  All rights reserved.


C:\>P1.EXE
0123456789
```

Q2. Using loop write a program to print small letters a to z.

Code:

```
dosseg
.model small
.stack 100h
.data
.code
main proc
mov cx,26
mov DX,97
L1:
mov ah,2
int 21h
inc dx
Loop L1
mov ah,4ch
int 21h
main endp
end main
```

Output:

```
C:\>MASM F.ASM;
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987.  All rights reserved.


  51730 + 464814 Bytes symbol space free

      0 Warning Errors
      0 Severe  Errors

C:\>LINK F.OBJ;

Microsoft (R) Overlay Linker  Version 3.60
Copyright (C) Microsoft Corp 1983-1987.  All rights reserved.


C:\>F.EXE
abcdefghijklmnopqrstuvwxyz
```

Q3. Program to print the input number is equal or not to given number in program.(using jump)

Code:

```
dosseg

.model small

.stack 100h

.data

msg1 db 'number is equal$'

msg2 db 'number is not equal$'

.code

main proc

mov ax,@data

mov ds,ax


mov dl,5

mov ah,7

int 21h


cmp al,dl

je L1


mov dx,offset msg2

mov ah,9

int 21h

mov ah,4ch

int 21h


L1:

mov dx,offset msg1
```

```
mov ah,9

int 21h

mov ah,4ch

int 21h



main endp

end main
```

Output:

```
C:\>MASM P3.ASM;
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987.  All rights reserved.


  51680 + 464864 Bytes symbol space free

      0 Warning Errors
      0 Severe  Errors

C:\>LINK P3.OBJ;

Microsoft (R) Overlay Linker  Version 3.60
Copyright (C) Microsoft Corp 1983-1987.  All rights reserved.



C:\>P3.EXE
number is not equal
```