Q1: Program to Swap TWO NUMBERS.

Code:

```
Dosseg
.model small
.stack 100h
.data
.code
Main Proc
mov ax,'8'
mov bx, '5'
push ax
push bx
pop ax
pop bx
mov dx,ax
mov ah, 2
int 21h
mov dx.bx
mov ah,2
int 21h
Mov ah,4ch
INT 21h
Main endp
End Main
```

Output:

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

51710 + 464834 Bytes symbol space free

0 Warning Errors
0 Severe Errors

C:\>link swap.obj;

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

C:\>swap.exe
58
```

Q2. Program to REVERSE a String.

Code:

```
Dosseg _
.model small
.stack 100h
.data
string db 'abc'
.code
Main Proc
Mov ax,@data
Mov ds,ax
mov si,offset string
mov cx,3
L1:
mov bx,[si]
push bx
inc si
loop L1
mov cx,3
L2:
pop dx
mo∨ ah,2
```

```
L2:
pop dx
mov ah,2
int 21h
loop L2

Mov ah,4ch
INT 21h
Main endp
End Main
```

Output:

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

51642 + 464902 Bytes symbol space free

0 Warning Errors
0 Severe Errors

C:\>link stn.obj;

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

C:\>stn.exe
cba
```