



Ahsanullah University of Science & Technology

Department of Computer Science & Engineering

Course No : CSE3108

Course Title : Microprocessors Sessional

Assignment No : 01

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Submitted By -

Group : B₂

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Section : B

Question:

Write an assembly code to display '5S1C9' in Seven Segment Display.

Answer:

```
DSEG SEGMENT 'DATA'
```

```
NUMBERS DB 01101101b, 01101101b, 00000110b, 00111001b, 01101111b
```

```
DSEG ENDS
```

```
SSEG SEGMENT STACK 'STACK'
```

```
DW 100h DUP(?)
```

```
SSEG ENDS
```

```
CSEG SEGMENT 'CODE'
```

```
START PROC FAR
```

```
; Store return address to OS:
```

```
PUSH DS
```

```
MOV AX, 0
```

```
PUSH AX
```

```
; Set segment registers
```

```
MOV AX, DSEG
```

```
MOV DS, AX
```

```
MOV ES, AX
```

MOV DX, 2030h ; First seven segment Display

MOV SI, 0

MOV CX, 5

NEXT:

MOV AL, NUMBERS[SI]

~~out~~

OUT DX, AL

INC SI

INC DX

LOOP NEXT

; return to operating system:

RET

START ENDP

CSEG ENDS

END START