



Ahsanullah University of Science & Technology

Department of Computer Science & Engineering

Course No : CSE3108

Course Title : Microprocessors Sessional

Assignment No : 03

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Section : B

Question: Show the desired output in Seven segment and LED display: '5S1C9', Y(ON)-G(ON)-Y+G(OFF)-R1+R2(ON)

Answer:

```
DSEG SEGMENT 'DATA'
DSEG ENDS
```

```
SSEG SEGMENT STACK 'STACK'
DW 100h DUP(?)
```

```
SSEG ENDS
```

```
CSEG SEGMENT 'CODE'
```

```
START PROC FAR
```

```
PUSH DS
```

```
MOV AX, 0
```

```
MOV PUSH AX
```

```
MOV AX, DSEG
```

```
MOV DS, AX
```

```
MOV ES, AX
```

STEP1:

```
MOV DX, 2030h
```

```
MOV AL, 01101101b
```

```
OUT DX, AL
```

```
MOV DX, 2070h
```

```
MOV AL, 02H
```

```
MOV CX, 0090H
```

```
LO: LOOP LO
```

STEP 2:
MOV DX, 2031h
MOV AL, 01101101b
OUT DX, AL

MOV DX, 2070h
MOV AL, 06H
OUT DX, AL
MOV CX, 0090H
L1: LOOP L1

STEP 3:
MOV DX, 2032h
MOV AL, 00000110b
OUT DX, AL

MOV DX, 2070h
~~MOV~~ MOV AL, 00H
OUT DX, AL
MOV CX, 0090H
L2: LOOP L2

STEP 4:
MOV DX, 2033h
MOV AL, 00111001b
OUT DX, AL

MOV DX, 2070h
MOV AL, 09H
OUT DX, AL
MOV CX, 0090H
L3: LOOP L3

STEP5:

MOV DX, 2034H

MOV AL, 01101111b

OUT DX, AL

MOV CX, 0050H

L4: LOOP L4

RET

START ENDP

CSEG ENDS

END START