

**Ahsanullah University of Science & Technology**  
**Department of Computer Science & Engineering**

**Course No** : CSE3108  
**Course Title** : Microprocessors Sessional  
**Assignment No** : 05

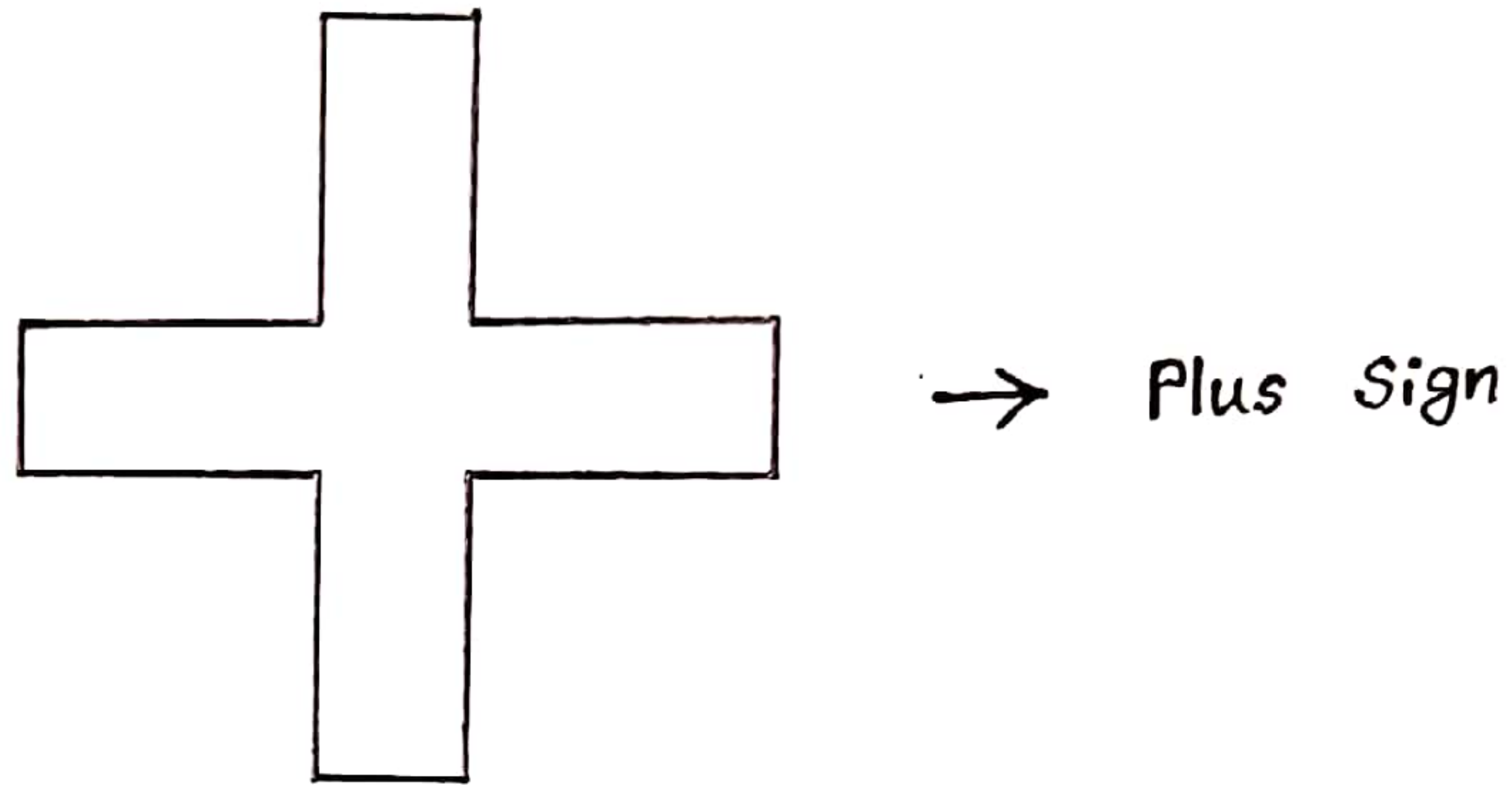
**Date of Submission** : 08-08-2021

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**Submitted By-**

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**Section** : B

Question : Draw the given shape in dot matrix display and show the initials of the shape in the seven segment display.



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

      PUSH AX
```



MOV AX, DSEG

MOV DS, AX

MOV ES, AX

; DOT MATRIX

MOV DX, 2003H

MOV AL, 0000 0001b

OUT DX, AL

MOV CX, 100H

L1: LOOP L1

MOV DX, 2003H

MOV AL, 0000 0011b

OUT DX, AL

MOV CX, 100H

L2: LOOP L2

MOV DX, 2003H

MOV AL, 0000 0111b

OUT DX, AL

MOV CX, 100H

L3: LOOP L3

MOV DX, 2002H

MOV AL, 0000 0100b

OUT DX, AL

MOV CX, 100H

L4: LOOP L4

MOV DX, 2001H

MOV AL, 0000 0100b

OUT DX, AL

MOV CX, 100H

L5: LOOP L5

MOV DX, 2001H

MOV AL, 0000 1100b

OUT DX, AL

MOV CX, 100H

L6: LOOP L6

MOV DX, 2001H

MOV AL, 0001 1100b

OUT DX, AL



MOV CX, 100H

L7 : LOOP L7

MOV DX, 2002H

MOV AL, 0001 0100b

OUT DX, AL

MOV CX, 100H

L8 : LOOP L8

MOV DX, 2003H

MOV AL, 0001 0111b

OUT DX, AL

MOV CX, 100H

L9 : LOOP L9

MOV DX, 2003H

MOV AL, 0011 0111b

OUT DX, AL

MOV CX, 100H

L10 : LOOP L10

MOV DX, 2003H

MOV AL, 0111 0111b

OUT DX, AL

MOV CX, 100H

L11 : LOOP L11

MOV DX, 2004H

MOV AL, 0100 0000b

OUT DX, AL

MOV CX, 100H

L12 : LOOP L12

MOV DX, 2005H

MOV AL, 0100 0000b

OUT DX, AL

MOV CX, 100H

L13 : LOOP L13

MOV DX, 2005H

MOV AL, 0110 0000b

OUT DX, AL



MOV CX, 100H

L14: LOOP L14

MOV DX, 2005H

MOV AL, 0111 0000b

OUT DX, AL

MOV CX, 100H

L15: LOOP L15

MOV DX, 2006H

MOV AL, 0001 0000b

OUT DX, AL

MOV CX, 100H

L16: LOOP L16

MOV DX, 2007H

MOV AL, 0001 0000b

OUT DX, AL

MOV CX, 100H

L17: LOOP L17

MOV DX, 2007H

MOV AL, 0001 1000b

OUT DX, AL

MOV CX, 100H

L18 : LOOP L18

MOV DX, 2007H

MOV AL, 0001 1100b

OUT DX, AL

MOV CX, 100H

L19 : LOOP L19

MOV DX, 2006H

MOV AL, 0001 0100b

OUT DX, AL

MOV CX, 100H

L20 : LOOP L20

MOV DX, 2005H

MOV AL, 0111 0100b

OUT DX, AL



MOV CX, 100H

L21: LOOP L21

MOV DX, 2005H

MOV AL, 0111 0110b

OUT DX, AL

MOV CX, 100H

L22: LOOP L22

MOV DX, 2005H

MOV AL, 0111 0111b

OUT DX, AL

MOV CX, 100H

L23: LOOP L23

MOV DX, 2004H

MOV AL, 0100 0001b

OUT DX, AL

MOV CX, 100H

L24: LOOP L24



MOV DX, 2030h

; 1st Seven segment Display

MOV AL, 0111 0011b

OUT DX, AL

MOV CX, 100H

L25: LOOP L25

MOV DX, 2031h

; 2nd Seven segment Display

MOV AL, 0110 1101b

OUT DX, AL

MOV CX, 100H

L26: LOOP L26

RET

START ENDP

CSEG ENDS

END START