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2017-1-60-016

(1)

CSE 442 (1) Roll no: - 10

Ans to the Ques No :- 1

a) offset address = C70DH
E30AH

① AA17H
drop

segment register = B1380H
offset address = AA17H

memory address = BB D97H

b) offset address = ACAFH
C97H
B946H

segment register = 9BCF0H
offset address = B946H

memory address = A7636H

②

Ans to the Ques No:-4

$$(6! - 3! * 4!) / 5!$$

MOV AX, 1

MOV CL, 6

L1: MUL CL

LOOP L1

MOV DX, AX

MOV AX, 1

MOV CL, 3

L2: MUL CL

LOOP L2

MOV BX, AX

MOV AX, DX

SUB AX, BX

MOV DX, AX

MOV AX, 1

MOV CL, 4

3

L3: MUL CL

LOOP L3

MOV BX, AX

MOV AX, DX

MUL BL

MOV DX, AX

MOV AX, 1

MOV CL, 5

L4: MUL CL

LOOP L4

MOV BX, AX

MOV AX, DX

DIV BL

INT 3

④

Ans to the Ques No:-5

a) $\text{MOV } [CX], BX$ which is Register indirect addressing

$CX = 0C5FH$

$DS = BCDOH$

effective
address

$= C92FH$

b) $\text{MOV } [DI + CCH], CL$ which is Register addressing mode.

$DI = AC59H$
 CCH

$AD25H$

$DS = 2270H$

effective address $= CF95H$

⑤

c) MOV AX, ARRAY[BX+SI+AC H]

BP = 4EDF H

SI = E9B H

= 5D7A H

= AAC H

= 5E26 H

ARRAY = 8FEF H

EE15 H

SS = EA90 H

1D8A5 H

⑥

Ans to the Ques No:- 2

a) $CS: IP = C8AAH : BFDH$

memory location $= CS \times 10H + IP$

memory address $= C8AA0H$

~~B B B D F H~~

~~4 A 7 F H~~

$= D4A7FH$

b) $SS: BP = CE0AH : B459H$

memory location $= SS \times 10H + BP$

memory address $= CE0A0H$

$B459H$

$= D94F9H$

⑦

c) DS: SI = B8ECH : ECH

Memory location = $DS \times 10H + SI$

Memory address = B8E0H
ECH

= B8FACH

Ans to the Ques No:- 3

a) MOV [COAEH], CL

Byte 1:

1	0	0	0	1	0	0	0	X
---	---	---	---	---	---	---	---	---

Byte 2:

0	0	0	0	1	1	1	0	X
---	---	---	---	---	---	---	---	---

Byte 3:

1	0	1	0	1	1	1	0	X
---	---	---	---	---	---	---	---	---

Byte 4:

1	1	0	0	0	0	0	0	X
---	---	---	---	---	---	---	---	---

② So, the machine Code is 880FAEC0H

b) MOV AX, [BX, DI]

BX = 011
DI = 111
① 010

Byte1

1	0	0	0	1	0	1	1
---	---	---	---	---	---	---	---

Byte2

1	1	0	0	0	0	1	0
---	---	---	---	---	---	---	---

So, machine code is 8BC2H

c) MOV [DI + 1], BL

Byte1

1	0	0	0	1	0	0	0
---	---	---	---	---	---	---	---

Byte2

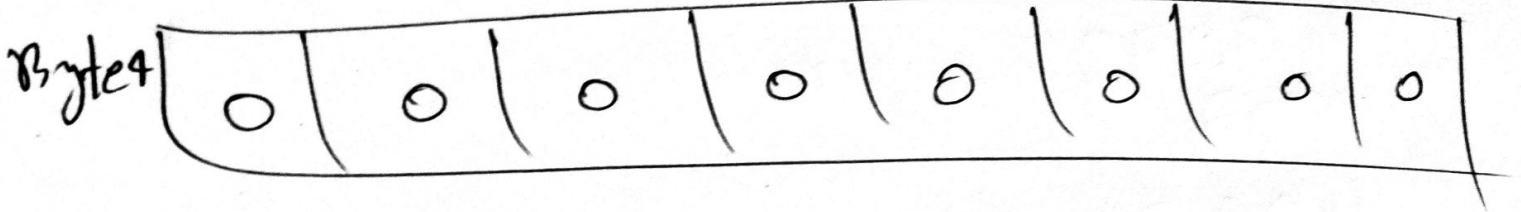
0	1	0	1	0	0	1	1
---	---	---	---	---	---	---	---

②

displacement Low



displacement high



machine Code 8850001H