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Section: 02

CSE 341
Assignment 02

Ans: to: the - Q: No - 01

Here,

My BRACU Student id = 19101023

∴ MOV AX, 1910H

MOV BX, 1023H

Now,

1910 H → 0001 1001 0001 0000

1023 H → 0001 0000 0010 0011

0010 1001 0011 0011

So, Status Flag will be :-

CF : 0

PF : 0

AF : 0

ZF : 0

SF : 0

OF : 0

Ans: to: the - Q: No-02

"The flag register helps in programming the 8086 Microprocessor."

In Intel 8086 it has 16 flag registers and among them 9 are active. The main purpose of the flag registers are to show the different statuses of the processor. It is done by setting the individual bits. These are called Flags.

There are two kinds of flag. One is status flag & the other one is control flag.

Status Flag: It reflect the status of an operation executed by the processor.

Control Flag: It enables or disables certain operations of the processor.

Ans: to: the - Q: No-03

Register Direct Addressing	Register Indirect Addressing
1. The required data contains in the register.	1. The register gives the address of the required data.
2. It accesses the memory only once.	2. It access the memory twice.
3. Example - MOV AX, BX ↓ Here, BX contains required Data.	3. Example - MOV AX, [BX] ↓ Here, BX contains the address of required data.

Ans: to: the - Q: No - 04

Given that,

MOV 101A[BP+DI], DL

Now, considering the opcode for a Mov operation to be 10 00 10

So, D = 0

X = 0

Byte 1				Byte 2						
1	0	0	0	1	0	0	1	0	0	1
Opcode				0	X	MOD		REG		R/M

Byte 3								Byte 4							
0	0	0	1	1	0	1	0	0	0	0	1	0	0	0	0
Low byte								High byte							

∴ In Hexadecimal = 88 93 1A 10 H

(Ans.)

Ans: to: the - Q: No-05

Given that,

MOV DX, [BX+SI]

Now, considering the opcode for a MOV operation to be 10 00 10.

So, D =

X = 1

Byte 1			Byte 2							
100010	1	1	0	0	0	1	0	0	0	0
Opcode	D	X	Mod		REG		R/M			
↓			↓							
8B			10							

∴ In Hexadecimal = 8B 10 H

(Ans:)

Ans: to: the - Q: No - 06

(a)

Here,

MOV 101A[BP + DI], DL

So, it is a Base - relative - plus - index addressing.
Because, here, it has a base, index and a displacement.

(b)

Here,

MOV DX, [BX + SI]

So, it is a Base - plus - index addressing cause
BX is a Base and SI is a index register
here.