MIDTERM .

Md. Minul Islam Talukdar
1510678042

PART-1

Ans: to the ques no: 01

LEA : LEA stands for Load Effective Address. Algorithm: REG = address of memory (offset)

Example : MOV BX, 35h
MOV DI, 12h
LEA SI, [BX+DI]

OFFSET: Offset is an assembler directive in x86 assembly language. It actually means "address" and is a way of handling the overloading of the "mov" instruction.

Ans: to the ques no: 02

DATA SEGMENT is the starting point of the Data Segment in a program and DATA is the name given to this segment and SEGMENT is the keyword for defining segments, where we can declare our variables.

Ans: to the ques no: 03

ASSUME DS: DATA CS: CODE

In Assembly Language programming, there are different registers present for different purpose. so we have to assume DATA is the name given to Data Segment register and CODE is the name given to Code Segment register (SS, ES are used in the same way as CS, DS).

Ans: to the ques no: 04

To access memory, we can use four registers: BX, SI, DI, BP. Combining these registers inside [] symbols, we can get different memory locations.

[BX+SI]	[SI]	[BX+SI+d8]
[BX+DI]	[DI]	[BX+DI+d8]
[BP+SI]	d16	[BP+SI+d8]
[BP+DI]	[BX]	[BP+DI+d8]
[SI+d8]	[BX+SI+d16]	[SI+d16]
[DI+d8]	[BX+DI+d16]	[DI+d16]
[BP+d8]	[BP+SI+d16]	[BP+d16]
[BX+d8]	[BP+DI+d16]	[BX+d16] .