Lecture 3

1. Find the offset for the following give physical and segment no. If you can NOT get an actual offset, explain the reasoning:

* Physical Address : 35467h and segment no: 2754
* Physical Address : 35467h and segment no: 4321
* Physical Address : FFFFEh and segment no: 0000
* Physical Address : FFFFEh and segment no: F123
* Physical Address : 23170h and segment no: 2317
* Physical Address : 23169h and segment no: 2317

1. For the following physical address find four different logical address. If you can not find it, explain the reason why?

* 54356h
* 32142h
* ABCD4h
* 00027h

3. Let's say we have FEDCh and A4WXh. And add both the numbers using ADD operation. Find the unknown hex values W and X such that value A4WXh is **maximum** for the following status flags value that was found from the result:

* PF = 0 and AF = 1
* PF = 0 and AF = 0
* PF = 1 and AF = 0
* PF = 1 and AF = 1

4. For the exact same values and given status flag values, now find the **minimum value** for A4WXh

Lecture 4

1. Name the addressing mode with explanation:
2. MOV 1234h[SI], AX
3. MOV CX, [5432h]
4. MOV 5432, CX
5. MOV [AX+DI],1234h
6. MOV [AL],[BL]
7. MOV AL, [BL]
8. HLT AX
9. IN AL, 87h
10. OUT CX, AL
11. Convert the following into machine code:
12. MOV AX, 5793h[BP+SI]
13. MOV DX, CX . Do for D = 0 & D = 1 separately
14. Convert the following into instruction:
15. 8BC3h
16. 8907h
17. 8B063472h

| Address | 10600h | 10601h |  |  | 20600h | 20601h | 30600h | 30601h |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Data | 12h | 34h |  |  | 56h | 78h | 10h | 20h |

Given DS = 1000h, SS = 2000h, CS = 3000h, BP = 0500h, SI = 0100h.