Output

1. (a)

	Value
Register B	32
Register C	32
Register D	32
Register E	32
Register H	32
Register L	32

(b)

	Value
Accumulator	45

(c)

Input { 2500H → 13
2501H → 32

Result 2502H → 45

Accumulator → 45
B → 13

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LAB ASSIGNMENT

8085 Microprocessor

1.

(a) Write a program to store 8-bit data into one register and then copy that to all registers

```
MVI  B, 32H
MOV  C, B
MOV  D, B
MOV  E, B
MOV  H, B
MOV  L, B
```

(b) Write a program for addition of two 8-bit nos.

```
MVI  A, 32H
MVI  B, 13H
ADD  B
STA  2500H
RST  5
```

(c) Write a program to add 8-bit nos. using direct and indirect addressing mode.

Direct

```
LDA  2500H
MOV  B, A
LDA  2501H
ADD  B
STA  2502H
RST  5
```

Teacher's Signature : _____

input { 2500 → 32
2501 → 11

2502 → 43

Accumulator → 43
Register H → 25
Register L → 02
Memory (M) → 43

(d) Direct { 2500 → 21
2502 → 11

2504 → 33

Register C → 01
Register E → 21
Register H → 12

Indired

Indirect

```
LXI H, 2500H
MOV A, M
INX H
ADD M
INX H
MOV M, A
RST 5
```

(d) Write a program to add 16-bit nos. using direct and indirect addressing mode.

Direct

```
LHLD 2500H
XCHG
LHLD 2502H
DAD D
SHLD 2504H
RST 5
```

Indirect

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2500 → 35

2501 → 21

Result 2501 → 6A

Accumulator → 6A

Register H → 25

Register L → 02

(e) WAP to add 8-bit nos. using carry

```
MVI C,00H
LXI H, 2500H
MOV A, M
ADD M
INX H
JNC Next
INR C
Next: MOV M, A
INX H
MOV M, C
RST 5
```

(f) WAP to find 1's complement and 2's complement of a number.

```
LDA 2500H          ← 1's complement
CMA
STA 2501H
RST 5
```

2's complement

```
LDA 2500H
CMA
ADI, 01H
STA 2501H
RST 5
```

Teacher's Signature : _____