Assembly Language Programming II

1.

```
      MVI  A, 01H
      MVI  B, 05H
      MVI  C, 00H
      SUB  B
      SNC  SKIP

SKIP: STA  2100H
      MOV  A, C
      HLT
```

2.

```
      LDA  2010H
      MVI  C, 08H
      MVI  D, 00H
      MVI  E, 00H
START: RRC
      SNC  ZERO
      SC   ONE
ONE:  INR  D
      SMP  END
ZERO: INR  E
      SMP  END
END:  DCR  C
      SNZ  START
      HLT.
```

3.

```
      LXI H, 2501H
      MOV B, M
      MVI A, 00H
      MOV D, B
      DCR B
START: SZ CNT
      MOV E, B
MUL:  ADD D
      DCR E
      SNZ MUL
      MOV D, A
      MVI A, 00H
      DCR B
      SMP START
CNT:  MOV A, D
      HLT
```

4.

```
LDA 2100H
MOV B, A
LDA 2101H
MOV C, A
```

5.

```
LDA 2100
CMA
INR A
STA 2101
HLT.
```

6.

```
MVI  B, 26H
MVI  C, 40H
MVI  D, 03H
MOV  A, B
ADD  C
SUB  D
STA  2100H
HLT
```

7.

```
LDA  2100H
MOV  B, A.
LDA  2101H
STA  2100H
MOV  A, B
STA  2101H
HLT
```

8.

```
      MVI  A, 00H
      MVI  B, 08H
      MVI  C, 02H
REPEATED_ADDITION: ADD  B
      DCR  C
      SNZ  REPEATED ADDITION
      STA  2100H
      HLT.
```

9.

```
      LDA  2501
      MOV  B, A
      LDA  2500
      CMP  B
      SC   SMALLER
      MOV  A, B
SMALLER  STA  2503
      HLT.
```

10.

```
        MVI  A, 00H
        MVI  B, 0AH
LOOP:   ADD  B
        DCR  B
        SNZ  LOOP
        HLT.
```

11.

```
        LDA  2010H
        ORA  A
        SPO  ODD
        SPE  EVEN
ODD:    MVI  A, 00H
        OUT  02H
        SMP  END
EVEN:   MVI  A, FFH
        OUT  02
        SMP  END
END     HLT.
```