Q1. Write a program in 8085 to count the odd and even parity numbers of 150 data stored in the memory location starting from C050H. Stores the counts at memory locations D000H and D001H.

```
MVI C, 96H ;150

MVI D, 00H ;ODD

MVI E, 00H ;EVEN

LXI H, C050H

LOOP: XRA A

ADD M

JPE EVEN

INR D

JMP EXIT

EVEN: INR E

EXIT: INX H

DCR C

JNZ LOOP

MOV A, D

STA D000H

MOV A, E

STA D001H

HLT
```

Q2. There are 40 8-bit numbers in a table with address starting from 9090H. Write a program in 8085 to transfer these numbers to another table with address from A010H if lower nibble of a number is greater than higher nibble. Otherwise transfer by setting bit D2 and resetting bit D6.

```
MVI C, 28H ;40
LXI H, 9090H
LXI D, A010H
LOOP: MOV A, M
ANI 0FH
MOV B, A
MOV A,M
RRC
RRC
RRC
RRC
ANI 0FH
CMP B ;Higher-Lower
JNC SETRESET
MOV A, M
STAX D
JMP EXIT
SETRESET: MOV A, M
ORI 00000100B
ANI 10111111B
STAX D
EXIT: INX H
```

```
INX D
DCR C
JNZ LOOP
HLT
```

Q3. There are two tables holding twenty data whose starting address is 9000H and 9020H respectively. Write a program to add the content of first table with the content of second table having same array index. Store sum and carry into the third and fourth table indexing from 9040H and 9060H respectively.

```
LXI SP, 9100H
LXI D, 9000H
LXI H, 9020H
LXI B, 9040H
START: LDAX D
ADD M
STAX B
JNC SKIP
PUSH H
LXI H, 9060H
MOV A, L
ADD E
MOV L, A
MVI M, 01H
POP H
SKIP:INX H
```

```
INX B

INX D

MOV A, E

CPI 14H

JNZ START

HLT
```