TASK 2 (6*2=12 marks)

Program 1

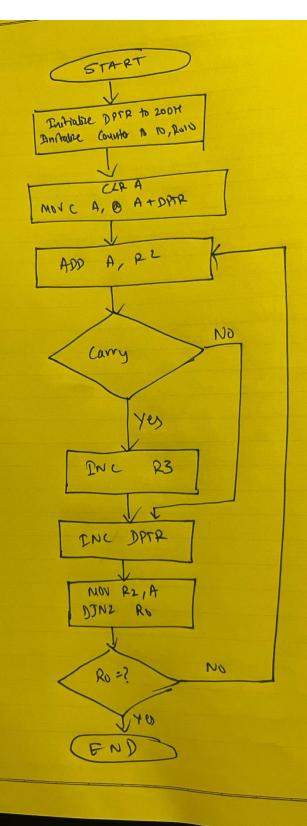
Write a program to add 10 bytes of data and store the result in registers R2 and R3. The bytes are stored in the ROM space starting at 200H. The data would look as follows:

```
MYDATA: DB 92, 34, 84, 129, ...
```

Pick your own data. Notice that you must first bring the data from ROM space into the CPU's RAM, and then add them together. Use a simulator to single-step the program and examine the data.

Code and Flowchart:

```
Write a program to add 10 bytes of data and store the result
in registers RZ and R3. The bytes are stored in 20M spuce
Sorting at 2004. The data would look as follows: My DATA: DB
92, 34, 84, 129.
Prick your own data. Notice that your must first bring the
data from from space into the 180's RAM and then add them
together. Use a simulator to angle-skep the program and examine
the data.
ORG DODOH
   MOV DATE # 200H
   MOV RO, #10
   2000 : CL2A
   MOVE A, OA + DATE
   ADDA, 22
  JNC NEXT
   TNC 83
  NEXT : INC DOTA
   MOV RZ, A
  DINZ RO, LOOP
  HERF : SJIMA HERE
   ORG 200H
   DB 22H, 43H, 23H, BUH, 31H, FFH, 91H, 33H, 43H, 7H
   END)
```



Code and Output ORG 0 MOV DPTR, #200H MOV RO, #10 LOOP: CLR A

MOVC A, @A + DPTR

MOV A, R2

JNC NEXT

INC R3

NEXT:

INC DPTR

MOV R2, A

DJNZ RO, LOOP

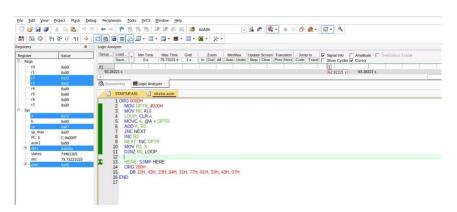
HERE:

SJMP HERE

ORG 200H

DB 32H, 43H, 23H, 84H, 31H, 97H, 91H, 33H, 49H, 07H

END



Program 2

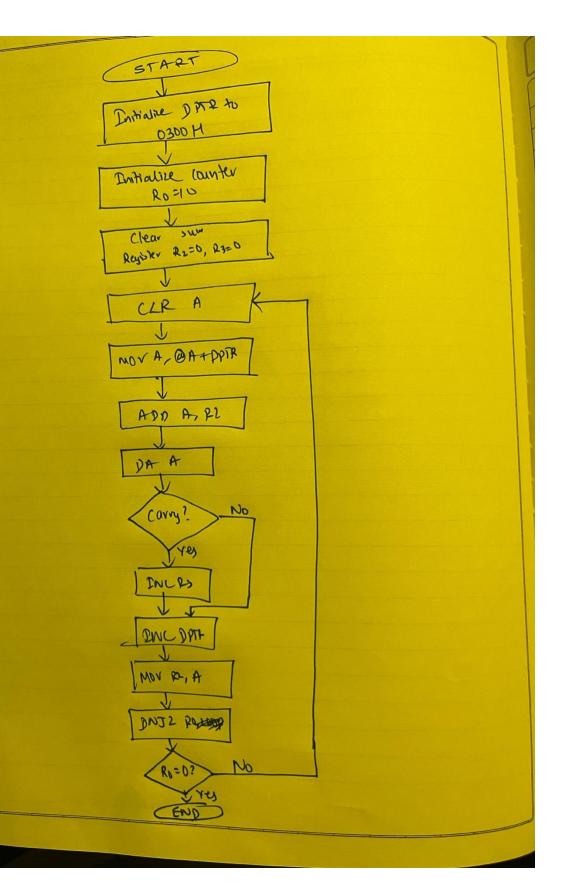
Write a program to add 10 bytes of BCD data and store the result in R2 and R3. The bytes are stored in ROM space starting at 300H. The data would look as follows:

MYDATA: DB 92H, 34H, 84H, 29H, ...; pick your own data.

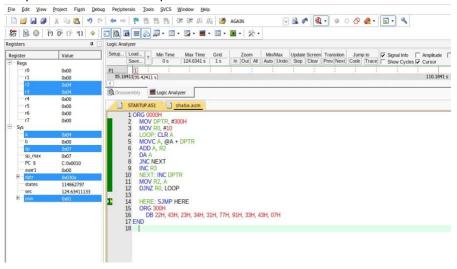
Notice that you must first bring the data from ROM space into the CPU's RAM, and then add them together. Use a simulator to single-step the program and examine the data.

Code and Flowchart

who to add 10 bytes of BLD data and store the routh in R2 and R3. They the bytes are stored in Rom space starting at 2004. The data would look as follows:
MYDATA: DB 92H, 54H, 54H, 29H, Pick your own data.
Notice that you must first bring the data from ROM space into the CD's RAM, and then add them together. We a simulator to single-skep the program and examine the data
ORG 0000M
NW DITZ, #20H
MOV 80, 110
LOOP: CLR A State Dillara
NOVE A, OA + DPTR
ADD A , 82
OA A
JNC NEXT
INC 83 MALE MAN OF MY CONTRACT AS PROPERTY OF
NORT: INC DOTE
Mov 22, A
DINZ RO, LOW
MERE: SIMP HERE
086 2004
DB 224, 434, 234, 344, 314, 774, 914, 337, 434, 74
FND.



Snapshot of Code and Output:



```
ORG 0000H

MOV DPTR, #300H

MOV RO, #10

LOOP:

CLR A

MOVC A, @A + DPTR

ADD A, R2

DA A

JNC NEXT

INC R3

NEXT:

INC DPTR

MOV R2, A

DJNZ R0, LOOP
```

HERE:

SJMP HERE

ORG 300H

DB 22H, 43H, 23H, 34H, 31H, 77H, 91H, 33H, 43H, 07H

END