**ASSIGNMENT**

1. Add the bytes in RAM locations 34h and 35h; put the result in registers R5 (LSB) and R6 (MSB).

ANS:

CSEG AT 0

MOV 34H,#11H

MOV 35H,#22H

MOV A,34H

ADD A,35H

MOV R5,A

MOV 20H.0,C

MOV R6,20H

END

1. Add the number 84h to the contents of RAM locations 17h (LSB) and 18h (MSB).

ANS:

CSEG AT 0

MOV 17H,#11H

MOV 18H,#22H

MOV A,17H

ADD A,#84H

MOV 17H,A

MOV 20H.0,C

MOV A,18H

ADD A,20H

MOV 18H,A

END

1. Add the byte in external RAM location 02CDh to internal RAM location 19h; put the result into external RAM locations 00C0h (LSB) and 00C1h (MSB).

ANS:

CSEG AT 0

MOV DPTR,#02CDH

MOVX A,@DPTR

ADD A,19H

MOV DPTR,#00C0H

MOVX @DPTR,A

INC DPTR

MOV 20H.0,C

MOVX @DPTR,20H

END

1. Write a program to add 897F9AH to 34BC48H and save the result in RAM memory locations starting at 40H.

ANS:

CSEG AT 0

MOV A,#9AH

ADD A,#48H

MOV 43H,A

MOV A,#7FH

ADDC A,#0BCH

MOV 42H,A

MOV A,#89H

ADDC A,#34H

MOV 41H,A

MOV 20H.0,C

MOV 40H,20H

END

1. Increment the contents of RAM locations 13h, 14h, and 15h using indirect addressing only.

AMS:

CSEG AT 0

MOV R0,#13H

INC @R0

INC R0

INC @R0

INC R0

INC @R0

END

1. Increment TL1 by 10h.

ANS:

CSEG AT 0

MOV A,TL1

ADD A,#10H

MOV A,TL1

END

1. Square the data read from port 0 pins and store the result in scratch pad area beginning from 40h MSB.

ANS:

CSEG AT 0

MOV A,P0

MOV B,P0

MUL AB

ADD A,35H

MOV 40H,B

MOV 41H,A

END

1. Assuming the data 255 (decimal) is present in register R0, separate the digits of this number and store the ascii character equivalents in scratch pad area beginning from 30h, Most significant digit first.

ANS:

CSEG AT 0

MOV A,R0

MOV B,#10

DIV AB

MOV R0,A

MOV A,B

ORL A,#30H

MOV 32H,A

MOV A,R0

DIV AB

MOV R0,A

MOV A,B

ORL A,#30H

MOV 31H,A

MOV A,R0

DIV AB

MOV A,B

ORL A,#30H

MOV 30H,A

END