Question # 01: Write a program that calculates the total sum paid to a salesperson for eight months. The following are the monthly paychecks for those months: \$986, \$5673, \$4323, \$1298, \$3700, \$1200, \$4300 and \$2300.

CODING:
.MODEL SMALL
.STACK 64
.DATA
COUNT EQU 08
SALARY DW 986, 5673, 4323, 1298, 3700, 1200, 4300, 2300
ORG 0010H
SUM DW 2 DUP(?)
.CODE

MAIN PROC FAR
MOV AX,@DATA
MOV DS, AX
MOV CX, COUNT
MOV SI, OFFSET SALARY
MOV AX, 00
MOV BX, AX
BACK: ADD AX, [SI]
ADC BX,0
INC SI
INC SI
DEC CX

JNZ BACK

MOV SUM, AX

MOV SUM+2, BX

MOV AH, 4CH

INT 21H

MAIN ENDP

Question # 02: Write a program to find the highest value from monthly paychecks given in Question # 01. **CODING: MODEL SMALL** .STACK 64 .DATA SALARY DW 986, 5673, 4323, 1298, 3700, 1200, 4300, 2300 ORG 0010H HIGHEST DW? .CODE MAIN PROC FAR

MOV AX, @DATA

MOV DS , AX

MOV CX, 8

MOV BX, OFFSET SALARY

SUB AX, AX

AGAIN: CMP AX, [BX]

JA NEXT

MOV AX, [BX]

NEXT: ADD BX, 2

LOOP AGAIN

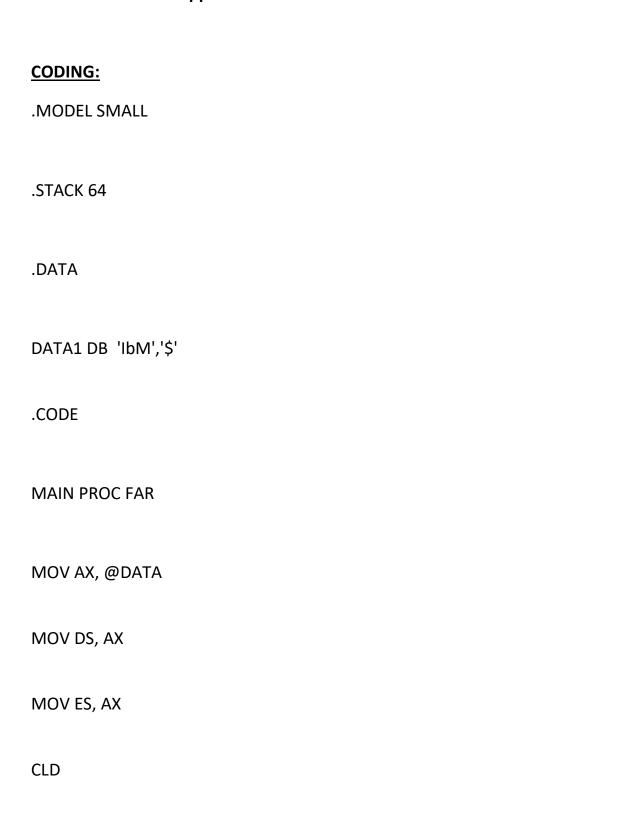
MOV HIGHEST, AX

MOV AH, 4CH

INT 21H

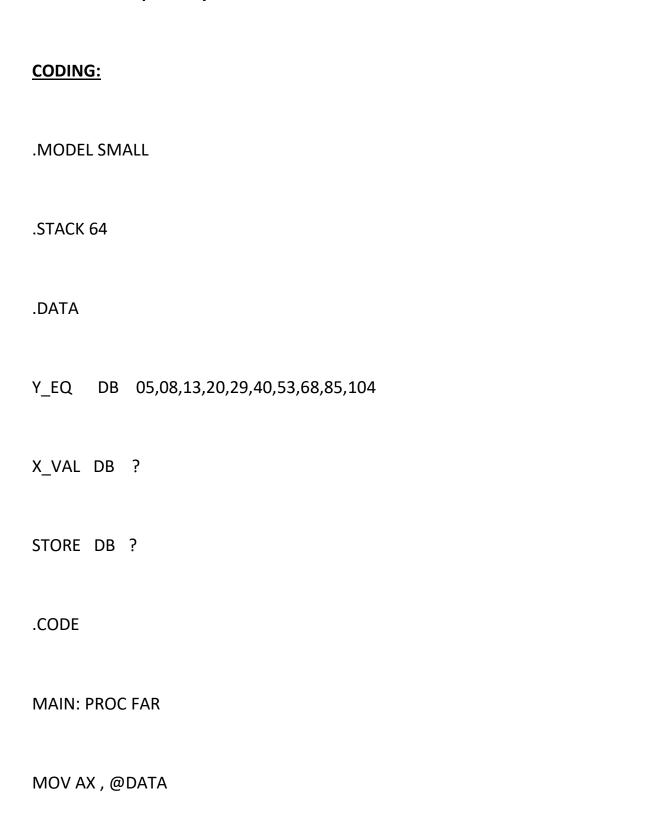
MAIN: ENDP

Question # 03: Write a program that scans the initials 'IbM' and replaces the lowercase 'b' with Uppercase 'B'.



MOV DI, OFFSET DATA1 MOV CX, 04 MOV AL, 'b' **REPNE SCASB** JNE OVER DEC DI MOV BYTE PTR [DI], 'B' OVER: MOV AH, 09 MOV DX, OFFSET DATA1 INT 21H MAIN: ENDP

Question # 04: Write a program using a lookup table and XLAT to retrieve the y value in the Equation $y = x^2 + 2x + 5$ for x values of 0 to 9.



 $\ensuremath{\mathsf{MOV}}\xspace$ DS , $\ensuremath{\mathsf{AX}}\xspace$

LEA BX,Y_EQ

 $\mathsf{MOV}\,\mathsf{AL}\,,\,\mathsf{X}_\mathsf{VAL}$

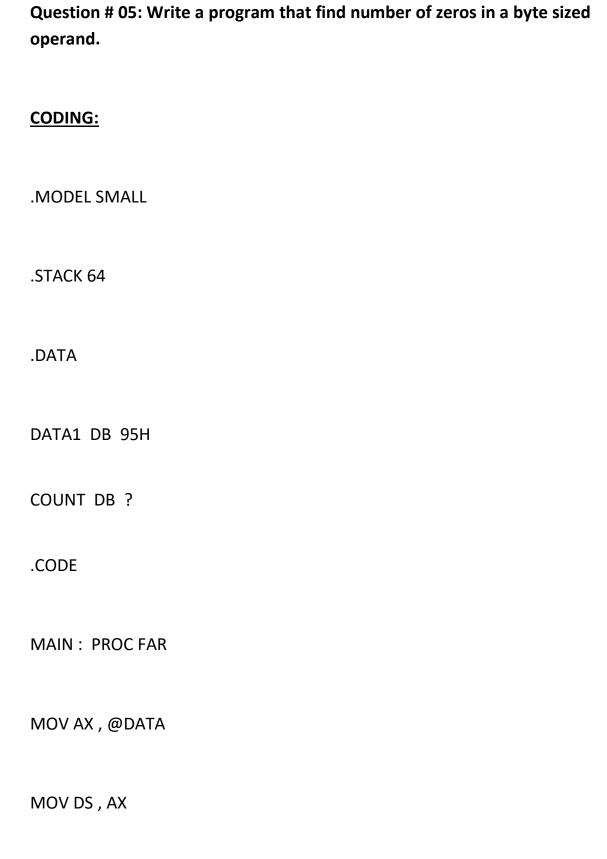
XLAT

 $\mathsf{MOV}\ \mathsf{STORE}\ \mathsf{,}\ \mathsf{AL}$

MOV AH, 4CH

INT 21

MAIN: ENDP



SUB BL, BL

MOV DL, 8

MOV AL, DATA1

AGAIN: ROL AL, 1

JC NEXT

INC BL

NEXT: DEC DL

JNZ AGAIN

MOV COUNT, BL

MOV AH, 4CH

INT 21H

MAIN: ENDP