COAL
BS DS Fall 2022
Quiz 4

Time allowed: 15 min   **Total marks: 20**

Roll Number: _____   **Name: _____**

Question#1   **[2*4=8]**
Suppose AL contains 11001011 and CF=1 gives new contents of AL after each of the following instructions is executed. Before the execution of each instruction the value AL is 11001011.

	Binary	Hexa
SHR AL, 1	**AL=_____01100101_____**	**AL=_____65_____**
ROL AL,CL if CL contains 2	**AL=___00101111_____**	**AL=_____2F_____**
SAR AL,CL if CL contains 2	**AL=_____11110010_____**	**AL=_____F2_____**
RCR AL, CL if CL contains 3	**AL=___11111001_____**	**AL=_____F9_____**

Question#2
Create a program that prompts the user to input a string, converts all lowercase letters to uppercase and vice versa, and then displays the modified string.   **[12]**
Sample output:
Enter a string: COAL is an Interesting Subject
New String is: coal IS AN iNTERESTING sUBJECT

```
.MODEL SMALL
.STACK 100H
.data
str1 db 'Enter a string: $'
str2 db 'New String is: $'
str3 db 50 dup ('$')
.CODE
MAIN PROC
        Mov ax, @data
        mov ds,ax

        mov dx, offset str1
        mov ah,9
        int 21h

        mov si, offset str3

again:  mov ah,1
        int 21h
        cmp al, 13
        je exit
        xor al,20h
        mov [si],al
        inc si
        jmp again

exit:   mov dx, offset str2
                mov ah,9
                int 21h
```

```
                        mov dx, offset str3
                        mov ah,9
                        int 21h


MOV AH,4CH
INT 21H
MAIN ENDP
END MAIN
```