

HERE ARE SOME EXAMPLE PIECES and NOTES TO HELP YOU DEVELOP YOUR PROGRAM1

1)

; Keyboard Input Buffer

```
KbBuff  DB    2          ; max no of input chars
          ; ( 1 + the enter key)
KbNoRead DB    0          ; No of chars actually read
          ; This field is returned
          ; ( the enter key don't count)
KbIn1   DB    ''         ; room for char 1
KbEntKey DB    ''         ; room for the enter key (0Dh)
```

2) Main Program - look at the main block diagram given in the assignment.

3)ClrScreen Proc ; Procedure to clear the screen

```
    push  ax          ; Save all registers
    push  bx
    push  cx
    push  dx

;    call BIOS to Clear the Screen

    mov  ah,6         ; Clear the screen command
    mov  al,0         ; clear the whole screen
    mov  ch,0         ; Start X Cord.
    mov  cl,0         ; Start Y Cord.
    mov  dh,24        ; End X Cord.
    mov  dl,79        ; End Y Cord.
    mov  bh,7         ; Clear to normal Attributes
    int  10h         ; BIOS interrupt

;    Set the cursor to line 1 position 1

    mov  ah,2
    mov  dh,1         ; row 1
    mov  dl,1         ; column 1
    mov  bh,0         ; page 0
    int  10h         ; BIOS interrupt

    pop  dx          ; Restore all registers
    pop  cx
    pop  bx
    pop  ax
    ret
ClrScreen ENDP
```

4)

```
PrtMsg PROC
    push    ax      ; Save all registers
    push    bx
    push    cx
    push    dx

;    call OS to Print the Message
    mov     dx,OFFSET Msg1
    mov     ah,9h   ; Function code for display string
    int     21h    ; call OS to do it

    call    GetDate ; Read and Format the Date
    call    GetTime ; Get the current time of Day.

    mov     dx,OFFSET Msg2
    mov     ah,9h   ; Function code for display string
    int     21h    ; call OS to do it
    pop     dx      ; Restore all registers
    pop     cx
    pop     bx
    pop     ax
    ret

PrtMsg ENDP
```

5) An Example program to show how to get the system time and date as well as how to display them is given in the book on Page 474.

6) ReadKeyBoard - Use "int 21h, function 0Ah", read keyboard, and
"int 21h, function 9h", to display string.

7) To_Ascii PROC

```
;    To_Ascii - Proc to take an unsigned binary value located in the
;    AX Reg and convert it to a string of printable ASCII characters.
;    The results are placed in AsciiOut (5 bytes in length).
```

```
    push    ax      ; Save all registers
    push    bx
    push    cx
    push    dx
    push    si

    mov     cx,5    ; number of out put characters
    mov     si,4    ; Index value to ASCIIOut
    mov     bx,10   ; value to divide by
```

Ascii_Loop:

```
mov  dx,0    ; clear dx for divide
div  bx      ; divide by 10
add  dx,30h  ; convert remainder to ascii
mov  AsciiOut[si],dl ; move the char to the output
dec  si      ; sub 1 from the index
loop Ascii_Loop ; do it 5 times
```

```
pop  si      ; Restore all registers
pop  dx
pop  cx
pop  bx
pop  ax
ret
```

To_Ascii ENDP