Name: Prabodh Wankhede

Roll no. 57

Class: SE(B)

Batch – B3

Assignment No. 11

Problem Statement: TSR to generate frequency tones by reading the real time clock (RTC)

**Code:**

code segment

assume cs:code

org 100h

jmp initze

savint dd ?

count dw 0000h

hours db ?

mins db ?

sec db ?

testnum:

push ax

push bx

push cx

push dx

push cs

push es

push si

push di

mov ax,0b800h

mov es,ax

mov cx,count

inc cx

mov count,cx

cmp cx,011h

jne exit

mov cx,000h

mov count,cx

call time

exit:

pop di

pop si

pop es

pop ds

pop dx

pop cx

pop bx

pop ax

jmp cs:savint

convert proc

and al,0f0h

ror al,4

add al,30h

call disp

mov al,dh

and al,0fh

add al,30h

call disp

ret

endp

time proc

mov ah,02h

int 1ah

mov hours,ch

mov mins,cl

mov sec,dh

mov bx,3984

mov al,hours

mov dh,hours

call convert

mov al,':'

call disp

mov al,mins

mov dh,mins

call convert

mov al, ':'

call disp

mov al,sec

mov dh,sec

call convert

ret

endp

disp proc

mov ah,9ch

mov es:bx,ax

inc bx

inc bx

ret

endp

tone proc

mov al,182

out 43h,al

mov ax,4560

out 42h,al

mov al,ah

out 42h,al

in al,61h

or al,00000011b

out 61h,al

mov bx,25

.pause1:

mov cx, 65535

.pause2:

dec cx

jne .pause2

dec bx

jne .pause1

in al, 61h

and al, 11111100b

out 61h, al

ret

endp

initze:

push cs

pop ds

cli

mov ah,35h

mov al,08h

int 21h

mov word ptr savint,bx

mov word ptr savint+2,es

mov ah,25h

mov al,08h

mov dx,offset testnum

int 21h

mov ah,31h

mov bx,offset initze

sti

int 21h

code ends

end

**Output:**

