COAL

Assessment No 14

Q1

```
org 100h

start:
    mov ax, 0B800h     ; Video segment
    mov es, ax
    xor di, di         ; Start position (top-left corner)


    mov cx, 20         ; Number of steps to move right

move_right:
    mov byte [es:di], 'O'    ; Draw ball
    mov byte [es:di+1], 0x07 ; White on black

    call delay               ; Pause

    mov byte [es:di], ' '    ; Erase
    add di, 2                ; Move right (next cell)

    loop move_right

    mov cx, 20               ; Move back 20 steps

move_left:
    mov byte [es:di], 'O'    ; Draw ball
    mov byte [es:di+1], 0x07

    call delay

    mov byte [es:di], ' '
    sub di, 2               ; Move left

    loop move_left


    mov ax, 4C00h
    int 21h


delay:
    mov bx, 300000
delay_loop:
    dec bx
    jnz delay_loop
    ret
```