

```

module shiftreg(
    input [7:0] R,
    input L, E, W, clock,
    output reg [7:0] q
);
    integer k;
    always @(posedge clock) begin
        if (L)
            q <= R;
        else if (E) begin
            for (k = 7; k > 0; k = k - 1)
                q[k-1] <= q[k];
            q[7] <= W;
        end
    end
end
endmodule

```