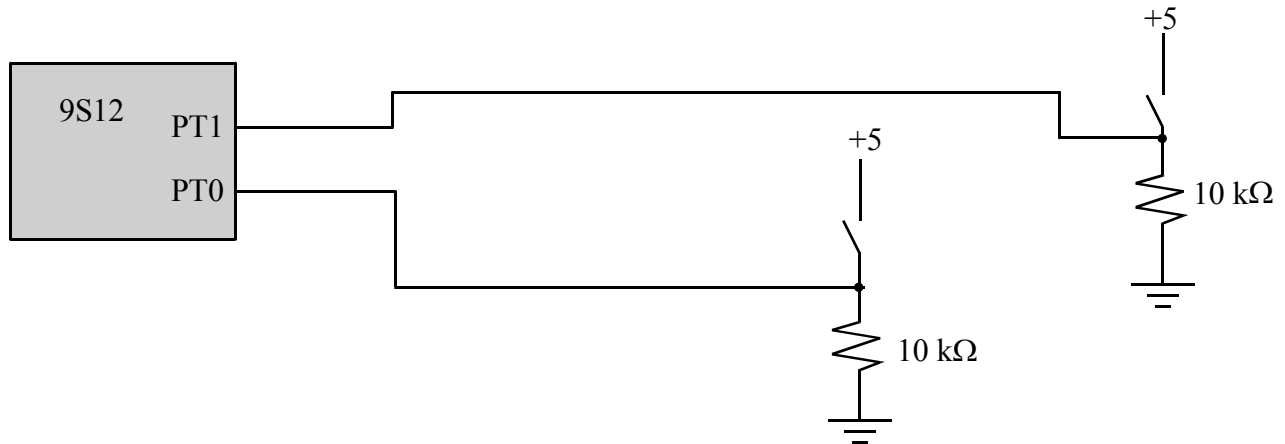


(15) Question 8. Draw the circuit diagram interfacing two positive logic switches.



(25) Question 9.

Part a) Write assembly code that makes PP0 an output and **Data** equal to 100.

```

;*****Init*****
; Initialize system PP0 is output, Data = 100
;Inputs: none
;Outputs: none
Init  bset DDRP,#$01  ;PP0 is an output
      ldaa #100
      staa Data      ;Data is unsigned
      rts

```

Part b) Write assembly code that sets PP0 to 1 if **Data**>25, and does not change PP0 if **Data**≤25.

```

;*****Check*****
; Check Data, if Data>25, set PP0
;Inputs: none
;Outputs: none
Check ldaa Data
      cmpa #25
      bls no          ;*****unsigned branch*****
      bset PTP,#$01  ;PP0 = 1 because Data>25
no    rts

```

(20) Question 10. Find the maximum of these two signed numbers and return the result in **RegA**.

```

;*****Max subroutine*****
;Inputs:  RegA is the first number, RegB is the second number
;Outputs: RegA is the maximum of first and second
Max  cba
      bge done      ; (or bgt) skip if RegA already larger than Reg B
      tba          ; Reg B was larger, so move B into A
done rts

```