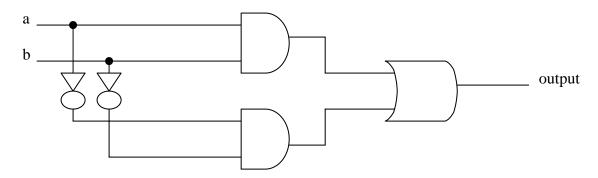
## 轉學考題 計算機概論 三年級

- 1. What is Hyper-thread? How can it work?
- 2. What are the differences between the pipeline and the super-scale?
- 3. Sketch the truth table according the following circuit. What is the major function of the following circuit?



- 4. Design a 1-bit subtraction circuit that subtracts two bits  $(x_i, y_i)$  with an old borrow  $(b_i)$ , setting an output bit  $(s_i)$  and a new borrow  $(b_{i+1})$
- 5. Suppose that we have a disk with the following physical characteristics: Rotation Speed: 7,200 rev/min; R/W head movement time: 0.01 ms to move to an adjacent track

Number of tracks/surface: 1000; Number of sectors/track: 64; Number of bytes/sector:1,024

What are the best-case, worst-case, and average case access time of 1K bytes?

- 6. Suppose the CPU would like to add the data 1 to the memory location with address 1FA6. Please explain what the operations would be processed?
- 7. How can an assembler convert the assembly codes to binary codes?
- 8. What are the major purposes of the MAC address and IP address?