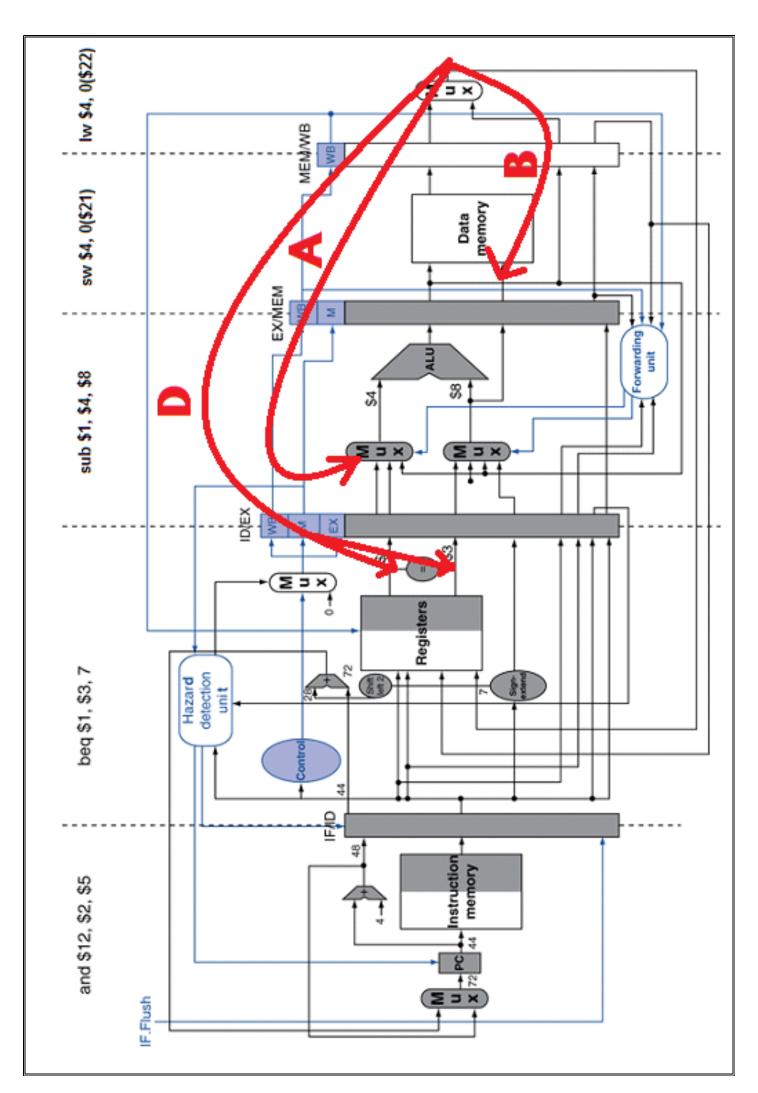
| 0907432 Computer Design (Fall 2014) <u>Quiz 1</u> | | | |
|--|--|--|--------------------------------|
| | الرقم التسلسلي: | رقم التسجيل: | الاسم: |
| | | book and notes exam. No electronic er to the space provided. No question < <i>Good Luck></i> | - |
| and | | own in the next page resolves branch through forwarding and stalls. Tons at Cycle 5. | _ |
| | | | [5 marks] |
| | lw \$4, 0(\$22) | | |
| | sw \$4, 0(\$21) | | |
| | sub \$1, \$4, \$8 | | |
| | beq \$1, \$3, 7 | | |
| | and \$12, \$2, \$5 | | |
| A) | On the diagram next page, draw and sub instructions. | the forwarding path needed to solve | the data hazard between the lw |
| B) | On the diagram next page, draw and sw instructions. | the forwarding path needed to solve | the data hazard between the lw |
| C) | Is there a need to stall the beq in | nstruction (answer Yes or No)? | Yes |
| D) | On the diagram next page, draw stage. | the needed forwarding paths from the | ne memory stage to the decode |
| E) | What instruction will be fetched | in Cycle 6? and \$12, \$2 | , \$5 |
| Yo | u must mark the forwarding paths | s you draw by the corresponding que | estion (A, B, and D). |
| | | | |



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