

Help


CONTROL HAZARDS

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1. CHECK YOUR UNDERSTANDING (1 point possible)

Consider a pipeline without branch prediction in which the branch is not taken. How many instructions within the pipeline will be discarded?

1 of 3

05/14/2015 04:07 PM

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- ☐ 0 
- ☐ 1
- ☐ 2
- ☒ 3 

**EXPLANATION**

Since the branch is not taken, ID and IF have the correct instructions when the branch condition is checked in EX. Therefore, no instructions will be discarded.


Hide Answer

*You have used 2 of 2 submissions*

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Consider a pipeline with branch prediction in which the branch outcome and target are both correctly predicted. How many instructions within the pipeline will be discarded?

- ☒ 0 
- ☐ 1
- ☐ 2
- ☐ 3

**EXPLANATION**

Since the branch was correctly predicted in IF (which will be verified in EX when the outcome is determined and the target address is calculated), the correct instructions were fetched. Therefore, no instructions will be discarded.

Final Check

**Save**

Hide Answer

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