

Due Sep 13 at 1:59am **Points 7** **Questions 7** **Available after Sep 8 at 1:20pm** **Time Limit None** **Allowed Attempts 3**

	Attempt	Time	Score
KEPT	Attempt 2	81 minutes	4.17 out of 7
LATEST	Attempt 3	1,096 minutes	2.42 out of 7
	Attempt 2	81 minutes	4.17 out of 7
	Attempt 1	95 minutes	3.92 out of 7

Question 1 0.67 / 1 pts

☐ Source register address

Question 2 0 / 1 pts

control hazard

Question 3 0 / 1 pts

[illegible]

You Answered

Correct Answers

0 (with margin: 0)
10 (with margin: 0)
0 (with margin: 0)
0 (with margin: 0)

Question 4

0 / 1 pts

Assume NO forwarding support -- this processor detects a hazard and then stall necessary cycles to resolve the stalls.

In what cycle this program fully finish?

Only type in the number

	0	1	2	3	4	5	6	7	...
lw \$1, 0(\$2)	IF	ID	EX	MEM	WB				
add \$2, \$1, \$1		IF							
sw \$2, 0(\$3)									
lw \$4, 0(\$3)									
add \$1, \$4, \$1									

You Answered

16

Correct Answers

0 (with margin: 0)
0 (with margin: 0)
14 (with margin: 0)
0 (with margin: 0)

Question 5

1 / 1 pts

Assume full forwarding support.

In what cycle this program fully finish?

Only type in the number

	0	1	2	3	4	5	6	7	...
lw \$1, 0(\$2)	IF	ID	EX	MEM	WB				
lw \$2, 0(\$1)		IF							
add \$3, \$2, \$4									

Correct!

8

Correct Answers

0 (with margin: 0)
0 (with margin: 0)
8 (with margin: 0)
0 (with margin: 0)

Unanswered

Question 6

0 / 1 pts

Fill in the blank for the EX/MEM forward unit pseudo code

if (<1> and (<2> != 0) and (<2> = <3>)) ForwardA = 10

if (<1> and (<2> != 0) and (<2> = <4>)) ForwardB = 10

When Rs and Rt are interchangeable, always put Rs to the lower number

You Answered

<1>

Correct Answer

EX/MEM.RegWrite

You Answered

<2>

Correct Answer

EX/MEM.RegisterRd

You Answered

<3>

Correct Answer

ID/EX.RegisterRs

You Answered

<4>

Correct Answer

ID/EX.RegisterRt

Other Incorrect Match Options:

- EX/MEM.RegisterRs
- ID/EX.RegWrite
- ID/EX.RegisterRd
- EX/MEM.RegisterRt

Question 7

0.75 / 1 pts

Fill in the blank for load-use hazard detection

if (<1> and ((<2> = <3>) or (<2> = <4>))) **stall** the pipeline

When Rs and Rt are interchangeable, always put Rs to the lower number

Correct!

<1>

ID/EX.MemRead

You Answered

<2>

ID/EX.RegisterRd

Correct Answer

ID/EX.RegisterRt

Correct!

<3>

IF/ID.RegisterRs

Correct!

<4>

IF/ID.RegisterRt

Other Incorrect Match Options:

- ID/EX.RegWrite
- IF/ID.RegWrite
- IF/ID.RegisterRd
- ID/EX.RegisterRd
- IF/ID.MemRead
- ID/EX.RegisterRs

Quiz Score: **2.42** out of 7