Thank you for taking the Week 12 : Assignment 12.



# Week 12 : Assignment 12

Your last recorded submission was on 2021-10-20, 14:38 IST

Due date: 2021-10-20, 23:59 IST.

1) In MIPS32 floating-point extension, for double-precision operations the register pair <F14, F15> is referred as: *1 point*

a. F15
b. F14
c. F13
d. F12
e. None of these

- ○ a.
- ◉ b.
- ○ c.
- ○ d.
- ○ e.

2) Consider the given floating-point instruction: *1 point*

**L.D F2, 400(R6)**

The data from location [R6+400] and [R6+404] will be loaded to which of the following registers?

a. F1, F2
b. F2, F3
c. F3, F2
d. None of these

- ○ a.
- ◉ b.
- ○ c.
- ○ d.

3) Which of the following techniques can be used to improve the CPI? *1 point*

a. Sequencing unrelated instructions
b. Separating related instructions
c. Loop unrolling
d. None of these

- ☐ a.
- ☐ b.
- ☑ c.
- ☐ d.

Assignments Solution

Live Interactive session

Text Transcripts

Books

4) Which of the following statement(s) is/are false for superscalar MIPS32 machine? *1 point*

a. It can issue multiple independent instructions every clock cycle.
b. It can result in a CPI of less than 1.
c. It can dynamically check dependency between instructions.
d. It consists of more than one functional units that can run in parallel
e. None of these.

- [ ] a.
- [ ] b.
- [ ] c.
- [ ] d.
- [x] e.

5) Loop unrolling requires significantly greater number of registers? *1 point*

a. True
b. False

- (•) a.
- ( ) b.

6) Which of the following is/are advantage of vector processor? *1 point*

a. It gives good speedup when we carry out similar operations on vectors.
b. No loop overhead.
c. The number of instructions gets reduced.
d. None of these.

- [x] a.
- [x] b.
- [x] c.
- [ ] d.

7) In a vector processor, suppose that the start-up time of vector multiply operation is 20 clock cycles. After start-up, the initiation rate is 5 clock cycles. The number of clock cycles required per result for a 128-element vector will be _____

5

*1 point*

8) Which of the following statement(s) is/are false for various types of multi-core processors?

*1 point*

a. In asymmetric multi-core system, all the cores are identical.
b. In symmetric multi-core system, different cores may have different functionalities.
c. In a tightly coupled multiprocessor all the processors have access to a common shared memory.
d. None of these.

- [x] a.
- [x] b.
- [ ] c.
- [ ] d.

You may submit any number of times before the due date. The final submission will be considered for grading.

**Submit Answers**

**Note: All these answers are confirmed from our side, we don't guarantee that you will get a 100% score. These are our own answers that we are sharing with you all. If you have any doubt that our answers are not correct then feel free to discuss (in-group) or do your own answer.**

**Most important: We don't promote any type of cheating, these answers are only for those students who are not able to do it on their own or need some help.**