**Advanced Operating Systems Design – Spring 2022**

**Quiz 5 (03/31/2022)**

Student Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ (First Last)

Student R#: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Score: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Total: 3%)

**Question 1:** (1%) Job scheduling

What are the factors that scheduling algorithms should consider when scheduling user jobs in a high-performance computing center?

*Please name four factors and quickly justify each of them.*

**Question 2:** (2%) Page replacement algorithms

Least Recent Used (LRU) provide good approximation of optimal page selection.

* Please explain how the LRU implementations (hardware vs. software) work
* Please discuss the bros and cons LRU hardware vs. LRU software implementations