## CS 6600 Take Home Final Fall 2021

## Matthew Whitesides

- 1) Considering the Voting System BLP model.
  - a) Does the system function according to the Voting Process?
  - b) Is either system secure from an attack where another voter V' can determine the vote that V made?
- 2) Consider a NI/NF/ND/MSDND model where each domain is labeled as above, but are not hierarchical.
  - a) Show, formally, that TM's behavior is MSDND (or ND) to E.
  - b) Show, formally, that V's behavior is MSDND (or ND) to E.
  - c) Show, formally, that TM's behavior is:
    - i) MSDND (or ND) to V.
    - ii) Not NI from TM to V.
- 3) Show how a Clark-Wilson style IVP implemented in the monitor can mitigate the MSDND portion of 2a, above. Does your solution violate the MSDND portion of 2b, above?

## ACKNOWLEDGMENT

The author would like to thank Professor Bruce McMillin with the Department of Computer Science, Missouri University of Science and Technology.

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