ECE8930 Introduction to Blockchain Technology
Final Exam

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1. (10 pt) How do PoW-based cryptocurrencies address the "double spend"?

2. (15 pt) Compare the "punishment mechanisms" adopted by Casper FFG and IOTA?

3. (15 pt) If you were a member of the Bitcoin community during the DAO attack? Which side would you take or support? Please explain you answer.

4. (10 pt) Explain why the Byzantine fault tolerant solution can tolerate up to one-third of the nodes being faulty?

5. (10 pt) What are the benefits of adopting the tree-like data structures (e.g., Merkle tree, and Trie) in the blockchain blocks?

6. (10 pt) How does the Bitcon blockchain achieve data immunity?

7. (10 pt) What are the differences between the sidechain and Ethereum's sharding?

8. (20 pt) Choose two anonymous cryptocurrencies and explain the strategies/approaches they adopted to provide user anonymity.