

Name: _____

USC ID: _____

INF 559 – Spring 2020

Quiz 1: Data Management and Computing Systems (10 points)

10 minutes

1. Convert 0xA0F7 from hexadecimal to binary

[3 points]

$(A0F7)_{16} = (1010\ 0000\ 1111\ 0111)_2$

2. In each case, indicate whether **a** or **b** gives a better read performance (assume all other factors are kept constant).

[3 points]

- **a. A disk with 1ms latency** OR b. A disk with 10ms latency
- a. A disk with 125Mb/s bandwidth OR **b. A disk with 500MB/s bandwidth**
- **a. Primary storage** OR b. Secondary storage

3. Arrange the following in ascending order of power usage (going from least usage to most usage):

[2 points]

- a. RAM
- b. CPU cache
- c. Hard disk drive

c. Hard disk drive -> a. RAM -> b. CPU cache

4. What is meant by metadata? (Provide a 1-line explanation and an example)

[2 points]

Data about data. e.g. file size, date of creation, author, content type, etc.