

# Homework 1

## CISC 6644 Privacy and Security in Big Data

**Department of Computer and Information Sciences, Fordham University**

**Total Score 20 points**

**A. Answer to the following questions (in one or a few sentences). (1\*5=5)**

1. What are the characteristics of big data?
2. Give three differences between traditional and advanced security approaches.
3. How can Crypto be used for Big Data security?
4. What is RTAP?
5. Tell a few advanced threats for Big Data.

**B. Select True or False for the following statements (1\*5=5)**

6. Traditional security solutions cannot bridge the gaps between data breach protection and compliance.
7. Pattern matching is a function of big data.
8. The storage part of Hadoop is called MapReduce.
9. The goal of designing Hadoop is to process big data with reasonable cost and time.
10. Big Data is designed for access, not security.

**C. Select appropriate answer(s) (1\*5=5)**

**11. Which dimension of big data may correspond to the analysis of data security and intelligence**

(a) Volume    (b) Variety    (c) Veracity    (d) Value

**12. As organizations started adopting Hadoop at an increasing rate, the future use of Hadoop may need for additional capabilities, including:**

- (a) Improved data storage
- (b) Improved extract, transform and load features for data integration
- (c) Improved data warehousing functionality
- (d) Improved security, workload management, and SQL support

**13. Which statement is wrong in terms of Big data**

a) No real indexes                      b) Data is structured  
c) Data can be processed in real time    d) It is not just about the volume of data

#### 14. What does “Velocity” in Big Data mean?

a) Speed of input data generation      b) Speed of individual machine processors  
c) Speed of ONLY storing data          d) Speed of storing and processing data

**15. Which of the following is true?**

a) Map>Reduce > Combine      b) Combine >Reduce>Map  
c) Map >Combine >Reduce      d) Reduce >Combine >Map