PRESIDENCY UNIVERSITY
BENGALURU

GAIN MORE KNOWLEDGE
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SCHOOL OF ENGINEERING
END TERM EXAMINATION - JUN 2023

Semester : Semester VI - 2020

Course Code : CSE3034

Course Name : Sem VI - CSE3034 - Big Data Security and Privacy

Program : CBD

Date : 14-JUN-2023

Time : 9.30AM - 12.30PM

Max Marks : 100

Weightage : 50%

Instructions:
(i) Read all questions carefully and answer accordingly.
(ii) Question paper consists of 3 parts.
(iii) Scientific and non-programmable calculator are permitted.
(iv) Do not write any information on the question paper other than Roll Number.

PART A

ANSWER ALL THE QUESTIONS   **(5 X 2 = 10M)**

1. Why Hadoop security is important?

(CO3) [Knowledge]

2. What is Intellectual Property?

(CO2) [Knowledge]

3. What is SIEM?

(CO4) [Knowledge]

4. Define big data privacy.

(CO1) [Knowledge]

5. What is Apache Oozie?

(CO3) [Knowledge]

PART B

ANSWER ALL THE QUESTIONS   **(5 X 10 = 50M)**

6. Explain in detail about Big data ethics.

(CO1) [Comprehension]

7. You are the security administrator of a large enterprise that utilizes Apache Oozie for managing and scheduling various data processing workflows. The company has identified a need to enhance the security of the Oozie environment due to the sensitivity of the data being processed. Your job is to secure the Oozie and prevent any unauthorized access.

(CO3) [Comprehension]

8. Explain in detail about various big data backup issues.

(CO2) [Comprehension]

9. Explain in detail about the following.
   a. Securing data at rest
   b. Securing data in motion

(CO4) [Comprehension]

10. What is HBase? Explain how to secure HBase with neat diagram.

(CO3) [Comprehension]

PART C

ANSWER ALL THE QUESTIONS   (2 X 20 = 40M)

11. You are the security administrator of a company that uses Apache Hive to store and process large amounts of sensitive data. Recently, you have noticed some suspicious activity in the Hive logs, indicating that unauthorized users may be trying to access the data. Your task is to secure the Hive and prevent any unauthorized access. Explain with neat diagram.

(CO3) [Application]

12. Explain in detail about Security Incident and Event Monitoring in a Hadoop Cluster with neat diagram.

(CO2,CO4) [Application]