

Name:	 UPES UNIVERSITY WITH A PURPOSE
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2021

Course: Big Data Security	Semester: VIII
Program: B.Tech CSE Bigdata	Time 03 hrs.
Course Code: CSBD4002	Max. Marks: 100

SECTION A

- 1. Each Question will carry 5 Marks**
2. Instruction: Complete the statement / Select the correct answer(s)

S. No.		CO
Q 1	Vulnerability is external event that can harm system or application (a) True (b) False	CO1
Q 2	Homomorphic encryption is a method of analyzing data without revealing the data (a) True (b) False	CO1
Q 3	In Kerberos, Authentication takes place between a user and a service they belong to.....? (a) Same realm (b) Different realm with trust relationship (c) Both a & b (d) None	CO2
Q 4	Hadoop own HDFS commands, Apache Flume, Apache Sqoop and Apache Nifi are tools of data ingestion. (a) True (b) False	CO4
Q 5	The data lineage helps in (a) Authentication and Authorization (b) Data Encryption (c) Providing visibility into data (d) All of the above	CO3
Q 6	Apache flume supports SSL over several links. (a) True (b) False	CO4

SECTION B

1. Each question will carry 10 marks

2. Instruction: Write short / brief notes

Q 7	Describe Homomorphic Encryption. Explain the workflow and types of it.	CO1
Q 8	Explain the concept of Data Governance. Explain the role and benefit of it.	CO1
Q 9	What is Data ingestion? Explain briefly on that. What are the different techniques for securing data ingestion?	CO4
Q 10	Explain various levels of encryption at data at rest. Explain the different components of HDFS level encryption.	CO3
Q 11	What is data lineage? Explain the challenges in Data lineage. Explain the concept and challenges of NoSQL Databases.	CO3

SECTION-C

1. Each question will carry 20 marks

2. Instruction: Write long answer

Q 12	What is Kerberos? Explain the different components of Kerberos. Explain the workflow or different steps of it. OR What is Apache Sentry? Explain the brief overview of it.	CO2
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