SILVER OAK UNIVERSITY
EDUCATION TO INNOVATION

College of Technology (01)
Bachelor of Technology
Department of Information Technology

Semester:	7th	**Academic Year:**	2024-25
Subject Name:	Big Data Analytics	**Subject Code:**	1010103436

Question Bank

Sr. No.	Question Text	Marks	CO Number
UNIT-1			
1	What is Big Data? Explain characteristics of Big Data.	6	CO1
2	List various applications of big data	3	CO1
3	Explain the difference between structured and unstructured data.	3	CO1
4	Discuss the various Critical success factors of Big Data Analytics	3	CO1
5	Parallel Processing and its important in Big Data Analytics	2	CO1
6	Difference Between Analytics vs Analysis	3	CO1
7	Explain the difference between structured, semi structured and unstructured data.	6	CO1
8	Difference Between Traditional data vs Big data	3	CO1
9	Explain the difference between structured and unstructured data.	3	CO1

10	What are the benefits of Big Data? Discuss challenges under Big Data. How Big Data Analytics can be useful in the development of smart cities.	8	CO1
11	What is Bigdata? Describe the main features of big data in detail.	8	CO1
12	What is big data analytics? Explain five 'V's of Big data. Briefly discuss applications of big data.	8	CO1
13	What is Big data? Discuss it in terms of four dimensions, volume, velocity, variety and veracity.	6	CO1
14	List various applications of big data. How it can be used to improve business for a superstore	4	CO1
15	Explain advantages and disadvantages of big data analytics.	3	CO1
16	Discuss Big Data in Healthcare, Transportation & Medicine.	7	CO1
17	What is Big Data? Explain how big data processing differs from distributed processing.	3	CO1
18	Give the difference between Traditional data vs Big Data.	3	CO1
UNIT-2			
19	Explain core architecture of Hadoop with suitable block diagrams. Discuss the role of each component in detail.	6	CO2
20	What is Name node & Data node in Hadoop Architecture.	2	CO2
21	Explain Map-reduce framework in brief.	6	CO2
22	Explain the Mapper Class and the Reducer Class	3	CO2
23	Explain in detail HDFS Architecture	6	CO2
24	List all the components of the HADOOP Ecosystem	2	CO2
25	What is Map Reduce ? Give the final output of the word count introducing each phase of mapreduce for the L1-DEER,BEAR,RIVER L2-CAR,CAR,RIVER L3-DEER,CAR,BEAR	3	CO2
26	What is Map Reduce? Explain algorithm with	6	CO2

	appropriate examples and diagrams.		
27	What is Name node & Data node in Hadoop Architecture.	2	CO2
28	Explain the core architecture of Hadoop with suitable block diagrams. Discuss the role of each component in detail.	6	CO2
29	What is Map Reduce? Explain working of various phases of Map Reduce with appropriate examples and diagrams.	6	CO2
30	What are the advantages of Hadoop? Explain Hadoop Architecture and its Components with proper diagrams.	8	CO2
31	What is Name node & Data node in Hadoop Architecture.	3	CO2
32	Draw HDFS Architecture. Explain any two commands of HDFS from the following commands with syntax at least one example of each. CopyFromLocal, setrep, checksum	8	CO2
33	What is the Hadoop Ecosystem? Discuss various components of the Hadoop Ecosystem.	8	CO2
34	What is Map Reduce? Explain working of various phases of Map Reduce with appropriate example and diagram	8	CO2
35	Explain “Map Phase” and “Combiner Phase” in MapReduce.	3	CO2
UNIT-3			
36	What is a NoSQL database? List the differences between NoSQL and relational databases. Explain in brief various types of NoSQL databases in practice.	8	CO3
37	Write differences between NoSQL and SQL.	6	CO3
38	Comparison SQL VS NOSQL.	3	CO3
39	Explain various NoSQL data Architecture patterns: Key value stores, Graph Stores, Column Family (Big Table) Stores, and Document stores	6	CO3
40	Explain distribution models: Master –Slave versus peer-to-peer	6	CO3
41	Explain Master–Slave distribution model	3	CO3

42	Explain peer-to-peer distribution model	3	CO3
43	Explain how to analyze big data with shared-nothing Architecture	3	CO3
44	Define NOSQL. List and Explain each types of NOSQL	6	CO3
45	Explain advantages and disadvantages of NoSQL.	3	CO3
46	Explain benefits and limitations of NoSQL.	3	CO3
47	Use of NoSQL in industry	6	CO3
48	Define NoSQL and explain benefits and limitations of NoSQL.	8	CO3
49	Define NoSQL and where is it used? (b) i) Document Oriented Database ii) Graph based Database	8	CO3
UNIT-4			
50	Define Data stream. Give the benefits and limitations of data stream.	6	CO4
51	Explain with a neat diagram about Stream data model.	3	CO4
52	Define Data Stream. Explain types of data sampling.	6	CO4
53	List out Real Time Analytics applications.	3	CO4
54	Prepare a case study on STOCK MARKET PREDICTION with following requirements: i) Briefly introduce about Stock market and its prediction ii) The Solution Path of the Stock Market Perdition. iii) Do the Empirical Study of the Stock Market Prediction.	8	CO4
55	Explain in brief with example Sampling data in Big Stream	3	CO4
56	Prepare a case study on Real time sentiment analysis.	3	CO4
57	Explain different types of sampling with examples.	4	CO4
58	Explain with a neat diagram about Stream data Architecture	4	CO4
59	Write down the needs of Data Stream.	3	CO4
60	Explain the characteristics of Data Stream.	3	CO4
61	Explain Filtering a stream in detail.	8	CO4

62	Define filtering. Explain implicit filtering.	4	CO4
63	Explain Counting Distinct Elements in a Stream with example	6	CO4
64	List out Real Time Analytics Platform application.	3	CO4
65	What is Real time sentiment analysis? Give the benefits and components of sentiment analysis.	8	CO4
UNIT-5			
66	What is pig in hadoop?	3	CO5
67	Explain Pig Architecture and components.	8	CO5
68	Why do we need apache hive?	3	CO5
69	Explain the architecture of the hive with a neat diagram.	8	CO5
70	Explain Hive clients and services.	6	CO5
71	What is Metastore?	3	CO5
72	Explain working of Hive with proper steps and diagram.	8	CO5
73	Explain the types of meta stores in Hive.	3	CO5
74	Explain the features of Pig.	4	CO5
75	Differentiate between Local Mode vs Mapreduce Mode.	4	CO5
76	Differentiate between Apache pig vs Mapreduce.	4	CO5
77	Differentiate between Apache pig vs NoSQL.	3	CO5
78	Write a case study on Twitter.	8	CO5

Subject Co-ordinator **Head of Department**