- 1. What is Hive primarily used for?
- a) Real-time data processing
- b) Analyzing structured data
- c) Web scraping
- d) Image recognition

Answer: b) Analyzing structured data

Explanation: Hive is primarily used for querying and analyzing structured data stored in Hadoop distributed file system (HDFS) using a SQL-like language called HiveQL.

- 2. Which component of Hadoop ecosystem does Hive rely on for distributed storage and processing?
- a) HBase
- b) MapReduce
- c) YARN
- d) ZooKeeper

Answer: b) MapReduce

Explanation: Hive relies on MapReduce for distributed storage and processing of data stored in HDFS.

- 3. Which of the following statements is true about Hive architecture?
- a) Hive directly stores data in a relational database.

- b) Hive translates SQL-like queries into MapReduce jobs for execution.
- c) Hive only supports unstructured data processing.
- d) Hive is independent of Hadoop ecosystem components.

Answer: b) Hive translates SQL-like queries into MapReduce jobs for execution.

Explanation: Hive architecture involves translating SQL-like queries into MapReduce jobs which are executed on the Hadoop cluster.

- 4. Which of the following is not a Hive data type?
- a) Array
- b) Map
- c) Tuple
- d) Struct

Answer: c) Tuple

Explanation: Hive supports complex data types such as Array, Map, Struct, but not Tuple.

- 5. In Hive, what is the purpose of the 'serde' in table creation?
- a) Serialization/Deserialization
- b) Sorting data
- c) Securing data
- d) Shuffling data

Answer: a) Serialization/Deserialization

Explanation: The 'serde' (serialization/deserialization) in Hive table creation specifies how data is serialized and deserialized when read from or written to the table.

- 6. Which query language is used in Hive for data manipulation and querying?
- a) HiveQL
- b) Pig Latin
- c) SQL
- d) Java

Answer: a) HiveQL

Explanation: Hive Query Language (HiveQL) is used in Hive for data manipulation and querying.

- 7. What is the primary function of Pig in the Hadoop ecosystem?
- a) Real-time data processing
- b) Analyzing structured data
- c) Batch processing of data
- d) Machine learning

Answer: c) Batch processing of data

Explanation: Pig is primarily used for batch processing of data in the Hadoop ecosystem.

8. Which programming language is used to write Pig scripts?

- a) Java
- b) Python
- c) Pig Latin
- d) Scala

Answer: c) Pig Latin

Explanation: Pig scripts are written in Pig Latin, a high-level data flow scripting language.

- 9. What does ETL stand for in the context of data processing?
- a) Extract, Transform, Load
- b) Examine, Test, Learn
- c) Execute, Transform, Log
- d) Edit, Transform, Load

Answer: a) Extract, Transform, Load

Explanation: ETL stands for Extract, Transform, Load, which refers to the process of extracting data from various sources, transforming it into a suitable format, and loading it into a target database or data warehouse.

- 10. Which of the following is not a data type supported by Pig?
- a) Integer
- b) Float
- c) Date
- d) Complex

Answer: c) Date

Explanation: Pig supports basic data types like Integer, Float, and also complex data types like Map, Tuple, and Bag, but it does not have a specific data type for handling dates.

- 11. How does Pig execute data processing tasks?
- a) Using MapReduce
- b) Using Spark
- c) Using Flink
- d) Using Storm

Answer: a) Using MapReduce

Explanation: Pig executes data processing tasks using MapReduce framework.

- 12. Which of the following Pig Latin operators is used for filtering data?
- a) GROUP
- b) JOIN
- c) FILTER
- d) FOREACH

Answer: c) FILTER

Explanation: FILTER operator in Pig Latin is used to filter rows of data based on a specified condition.

- 13. What is the purpose of Pig functions?
- a) To define complex data structures
- b) To perform data manipulation and transformation
- c) To optimize query execution
- d) To manage security access

Answer: b) To perform data manipulation and transformation

Explanation: Pig functions are used to perform various data manipulation and transformation tasks within Pig scripts.

- 14. Which of the following is a user-defined function (UDF) in Pig?
- a) CONCAT
- b) COUNT
- c) MAX
- d) SUM

Answer: a) CONCAT

Explanation: CONCAT is an example of a user-defined function (UDF) in Pig, used for concatenating strings.

- 15. What is the default execution mode of Pig?
- a) Local mode
- b) Distributed mode

- c) Standalone mode
- d) Parallel mode

Answer: b) Distributed mode

Explanation: The default execution mode of Pig is distributed mode, where tasks are executed across the Hadoop cluster.

- 16. Which of the following is a Pig Latin keyword used to define a schema for data?
- a) LOAD
- b) STORE
- c) SCHEMA
- d) DESCRIBE

Answer: c) SCHEMA

Explanation: SCHEMA keyword is used in Pig Latin to define a schema for data during loading or storing operations.

- 17. What is the purpose of the 'STORE' keyword in Pig Latin?
- a) To load data into a relation
- b) To filter data
- c) To store the output of a Pig script
- d) To group data

Answer: c) To store the output of a Pig script

Explanation: The 'STORE' keyword in Pig Latin is used to store the output of a Pig script into a specified location.

- 18. Which Pig Latin operator is used for joining two or more datasets?
- a) GROUP
- b) JOIN
- c) FILTER
- d) DISTINCT

Answer: b) JOIN

Explanation: JOIN operator in Pig Latin is used for joining two or more datasets based on a common field.

- 19. What does the 'GROUP' operator in Pig Latin do?
- a) Aggregates data based on a specified key
- b) Filters data based on a condition
- c) Joins two or more datasets
- d) Sorts data

Answer: a) Aggregates data based on a specified key

Explanation: The 'GROUP' operator in Pig Latin is used to aggregate data based on a specified key field.

20. Which data type in Pig represents an unordered collection of tuples?

- a) Bag
- b) Tuple
- c) Map
- d) Array

Answer: a) Bag

Explanation: In Pig, a Bag represents an unordered collection of tuples.

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