

CCC Simulation Exam

Q1. Which of the following is not a term for measuring data quantity?

- a) Zettabyte
- b) Kilobyte
- c) **Alphabyte**
- d) Gigabyte

Q2. Name the author of one of the early articles on Big Data discussing volume, velocity, and variety.

- a) Doug Laggett
- b) **Doug Laney**
- c) Doug Langley
- d) Derek Laney

Q3. Who should be involved in a Big Data project?

- a) **C-Suite members, Domain Experts, Scary Data People, IT professionals**
- b) C-Suite members, Domain Experts, Project Managers, Data Administrators
- c) Scary Data People, IT professionals, Project Managers, Data Administrator
- d) Scary Data People, IT professionals, Project Managers, Domain Experts

Q4. According to McKinsey Global Institute (MGI), what is the potential benefit of Big Data for US Health Care? Big Data?

- a) \$300 million
- b) **\$300 billion**
- c) \$500 million
- d) \$150 million

Q5. What is the decrease in piracy, according to the International Maritime Bureau, in the first 6 months of 2012, as a result of using Big Data?

- a) 12.5%
- b) 21%
- c) **54%**
- d) 80%

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Q6. What percentage of people in the US can be identified using DOB, ZIP, and sex?

- a) 7.6%
- b) **85%**
- c) 16%
- d) 45%

Q7. Which company uses MongoDB as the basis of its content management system?

- a) BBC
- b) **Forbes**
- c) Time Warner
- d) Associated Press

Q8. eBay is running a Hadoop cluster consisting of how many nodes?

- a) **532 (This was back in 2017)**
- b) 121
- c) 79
- d) 812

Q9. The three main characteristics of Big Data are:

- a) Validity, velocity, veracity.
- b) Volume, veracity, variety.
- c) Volume, validity, venality.
- d) **Velocity, variety, volume.**

Q10. Some of the main players in the Enterprise Systems space are:

- a) PeopleSoft, JD Edwards, Quora.
- b) **SAP, Oracle, Microsoft.**
- c) Facebook, Instagram, Twitter.
- d) MS Access, MySQL, DB2.

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Q11. In the case of SAP, data is best accessed through:

- a) **A connector.**
- b) A Flat file.
- c) MS Excel.
- d) MySQL.

Q12. Data warehouses, as a rule, are based on:

- a) Hierarchical database technology.
- b) **Relational database technology.**
- c) Spreadsheet files.
- d) Network database technology.

Q13. When working with metadata, we are interested in:

- a) Message content.
- b) **Information, such as, date and time, author, and origin.**
- c) The time when a database table was created.
- d) Recipient's personal details.

Q14. The Public Feed API of Facebook is available to:

- a) The general public.
- b) Some universities in US and Canada.
- c) A select number of Silicon Valley start-ups.
- d) **A limited set of media publishers.**

Q15. The Facebook Graph consists of:

- a) **Nodes, edges, fields.**
- b) Nodes, fields, topologies.
- c) Nodes, images, audio.
- d) Video, audio, nodes.

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Q16. Twitter's streaming APIs provide access to public tweets with very low delay. The stream is limited to:

- a) 9.5% of all tweets.
- b) 5.6% tweets of a select group of users.
- c) **1% of all tweets.**
- d) 1% of a user's tweets for a specific period of the day.

Q17. Twitter provides the following streaming APIs:

- a) **Public streams, user streams, site streams** (User & Site streams are no longer available)
- b) Public streams, data streams, user streams
- c) Facebook streams, Google streams, user streams
- d) Daily streams, monthly streams, weekly streams

Q18. The main providers of commodities-related datasets are:

- a) World Gold Council, World Bank, New York Stock Exchange.
- b) **World Gold Council, International Monetary Fund, World Bank.**
- c) International Monetary Fund, Reserve Bank of China, World Bank.
- d) Bank of America, BNP Paribas, Banco Itaú.

Q19. Data mining is the process of:

- a) Updating data elements in large datasets.
- b) Extracting data from datasets.
- c) **Discovering patterns within large datasets.**
- d) Maintaining large datasets by removing and adding records.

Q20. Which of the following is not a type of data mining?

- a) Classification
- b) Clustering
- c) **Cubing**
- d) Association

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Q21. The main algorithm used for clustering is:

- a) **K-means.**
- b) L-means.
- c) K-averages.
- d) L-averages.

Q22. Weka is a popular data mining application developed at:

- a) **The University of Waikato.**
- b) The University of Konstanz.
- c) The University of Chicago.
- d) The University of Queensland.

Q23. Name any two of the main Hadoop modules.

- a) RDBMS and NoSQL
- b) **HDFS and YARN**
- c) MapReduce and NoSQL
- d) Pig and SQL

Q24. The failover mechanism of Hadoop is implemented in:

- a) Data centers.
- b) Hardware.
- c) **Software.**
- d) Servers.

Q25. Which of the following is true?

- a) **DataNode periodically sends a HeartBeat to a NameNode.**
- b) DataNode is a server managing access to files and the namespace.
- c) NameNode manages the storage on a node.
- d) NameNode periodically sends a HeartBeat to a DataNode.

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Q26. Hbase is:

- a) **A high-performance database sitting on top of HDFS.**
- b) Based on Oracle's BigTable model.
- c) A data warehouse software that allows accessing of large datasets.
- d) Very similar to an RDBMS and applications can be easily ported.

Q27. Which of the following is not a type of Hadoop installation?

- a) Local
- b) **Hybrid**
- c) Pseudo-distributed
- d) Fully distributed

Q28. MapReduce:

- a) Is used to map relational tables to Hadoop.
- b) Takes several datasets and combines them for further processing.
- c) Uses similar syntax to SQL.
- d) **Takes a big dataset and splits it across several nodes.**

Q29. YARN resource management component works on a:

- a) **Master-slave model.**
- b) Master-master model.
- c) Slave-slave model.
- d) Peer-to-peer model.

Q30. The output of both Map and Reduce phases is:

- a) A single key-value pair.
- b) A CSV file.
- c) **Set of key-value pairs.**
- d) A database table.

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Q31. Which of the following is not provided by Hive?

- a) Extract/Transform/Load (ETL) functionality
- b) **MQL functionality**
- c) Query Language (QL) functionality
- d) Access to HDFS files

Q32. What type of database is MongoDB?

- a) Open-source relational database
- b) Relational database
- c) **Document database**
- d) MapReduce database

Q33. Explain what sharding means in MongoDB context.

- a) The process in which the same data set is maintained in several locations.
- b) **The process of storing data records across multiple nodes.**
- c) The process in which MapReduce also allows large data sets to be condensed into aggregated results.
- d) The process in which MongoDB aggregates the initial data set into a summarized one.

Q34. MongoDB is not available for:

- a) Mac OS.
- b) Linux.
- c) **Chrome OS.**
- d) Solaris.

Q35. The schema in document databases is:

- a) Fixed.
- b) **Flexible.**
- c) Denormalized.
- d) Bi-directional.

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Q36. In a document database, a collection corresponds to:

- a) A record in a relational database.
- b) A field in a relational database.
- c) Key-value pair in Hadoop.
- d) **A table in a relational database.**

Q37. In MongoDB the maximum size of a document is:

- a) 8 MB.
- b) **16 MB.**
- c) 1 GB.
- d) 128 MB.

Q38. Names in MongoDB cannot start with:

- a) A number.
- b) % character.
- c) **\$ character.**
- d) # character.

Q39. Names in MongoDB cannot contain:

- a) **.**
- b) _
- c) -
- d) +

Q40. Embedded documents in MongoDB design should be used when:

- a) There are no relationships between entities.
- b) We need to model hierarchical sets.
- c) **There are one-to-many relationships between entities.**
- d) There are many-to-many relationships between entities.