



Introduction to IoT

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Marks	30.00/30.00
Grade	100.00 out of 100.00

Question 1

Correct

Mark 2.00 out of 2.00

Which challenge of big data storage is characterized by the need to make data accessible from anywhere at anytime?

Select one:

- ☐ analytics
- ☐ security
- ☒ access
- ☐ management



Refer to curriculum topic: 3.1.2

Access refers to the characteristic of big data needing to be accessible from anywhere at anytime.

The correct answer is: access

Question 2

Correct

Mark 2.00 out of 2.00

True or False?

Data is defined as big data if it is more than 1 petabyte.

Select one:

- ☒ false
- ☐ true



Refer to curriculum topic: 3.1.1

False. There is no minimum required for data to be considered big data.

The correct answer is: false

Question 3

Correct

Mark 2.00 out of 2.00

A business is analyzing sales information as the sales data is being generated from the point-of-sale (POS) machines. What type of data is captured and processed as the events happen?

Select one:

- ☒ transactional data
- ☐ saved data
- ☐ raw data
- ☐ analytical data



Refer to curriculum topic: 3.1.3

There are two primary types of processed data, transactional and analytical. Transactional information is captured and processed as events happen. Analytical information supports managerial analysis using numerical analysis and decision making.

The correct answer is: transactional data

Question 4

Correct

Mark 2.00 out of 2.00

Which attribute of big data involves an exponential data growth rate?

Select one:

- ☒ velocity
- ☐ value
- ☐ variety
- ☐ volume



Refer to curriculum topic: 3.1.1

The characteristic of velocity refers to the amount of data that is growing exponentially fast.

The correct answer is: velocity

Question 5

Correct

Mark 2.00 out of 2.00

Making data accessible to only authorized users addresses which data storage problem associated with big data?

Select one:

- ☐ management
- ☐ access
- ☐ redundancy
- ☒ security



Refer to curriculum topic: 3.1.2

Stored data must be kept secure and only accessible by authorized users or it potentially loses its value.

The correct answer is: security

Question 6

Correct

Mark 2.00 out of 2.00

What is cloud computing?

Select one:

- ☐ a comprehensive ecosystem of open-source software for big data management
- ☒ a system of data centers or connected servers that provide anywhere/anytime access to data and applications ✓
- ☐ a process that turns raw data into meaningful information using patterns and relationships in data sets
- ☐ an architecture that utilizes edge devices for data preprocessing and storage

Refer to curriculum topic: 3.1.2

Cloud computing uses data centers and groups of connected servers to provide users with access to data and applications anywhere, anytime, and on any device.

The correct answer is: a system of data centers or connected servers that provide anywhere/anytime access to data and applications

Question 7

Correct

Mark 2.00 out of 2.00

True or False?

Structured data is easier to analyze and store than unstructured data.

Select one:

- ☒ true ✓
- ☐ false

Refer to curriculum topic: 3.1.2

Unstructured data, in contrast to structured data, is generated in a freeform style and is more difficult to store and analyze.

The correct answer is: true

Question 8

Correct

Mark 2.00 out of 2.00

What is the process of discovering patterns and relationships in large data sets in order to convert raw data into meaningful information?

Select one:

- ☐ data querying
- ☐ data selection
- ☒ data mining ✓
- ☐ data formatting

Refer to curriculum topic: 3.1.3

Data mining is the process of turning raw data into meaningful information by discovering patterns and relationships in large data sets. To be of value, the mined data is analyzed and presented to decision makers.

The correct answer is: data mining

Question 9

Correct

Mark 2.00 out of 2.00

What type of data is being collected when an organization is using spreadsheets and forms for data input?

Select one:

- ☐ application data
- ☒ structured data
- ☐ raw data
- ☐ unstructured data



Refer to curriculum topic: 3.1.3

Collected data is categorized as either structured or unstructured data. Structured data is created by applications that use 'fixed' format input such as spreadsheets. Unstructured data is generated in 'freeform' style such as tweets or audio files.

The correct answer is: structured data

Question 10

Correct

Mark 2.00 out of 2.00

What are three features of Hadoop? (Choose three.)

Select one or more:

- ☒ uses HDFS as a fault tolerant file system
- ☐ requires proprietary software
- ☒ easily scalable cluster sizes
- ☒ automatic replication of data across clusters
- ☐ must run on a single virtual machine



Refer to curriculum topic: 3.1.2

Hadoop is an open-source distributed storage solution for big data management. It easily scales cluster sizes, provides automatic replication of data across clusters, and uses HDFS as a fault tolerant file system.

The correct answers are: easily scalable cluster sizes, uses HDFS as a fault tolerant file system, automatic replication of data across clusters

Question 11

Correct

Mark 2.00 out of 2.00

True or False?

Distributed data processing involves large databases being centrally processed by powerful mainframe computers and stored in giant disk arrays.

Select one:

- ☒ false
- ☐ true



Refer to curriculum topic: 3.1.2

Distributed data processing involves breaking large data volumes into smaller pieces that are distributed to many computers for processing.

The correct answer is: false

Question 12

Correct

Mark 2.00 out of 2.00

An organization is concerned with the amount of sensor data that is being generated locally, analyzed in the cloud, and returned for processing at the local site. Which solution will keep the data closer to the source for preprocessing?

Select one:

- ☐ data mining
- ☐ distributed processing
- ☐ cloud computing
- ☒ fog computing



Refer to curriculum topic: 3.1.2

Fog computing is designed to preprocess data close to the source of the data at end-user or edge devices.

The correct answer is: fog computing

Question 13

Correct

Mark 2.00 out of 2.00

True or False?

Web scraping tools are used to extract and manipulate structured data.

Select one:

- ☒ false
- ☐ true



Refer to curriculum topic: 3.1.3

Collected data can be categorized as structured or unstructured. Both categories of data can be collected from different file formats that may not necessarily be compatible with one another. Structured data may be manipulated using comma-separated values (CSV), whereas web scraping tools are used to extract unstructured data.

The correct answer is: false

Question 14

Correct

Mark 2.00 out of 2.00

Which type of data can be used by a business to support managerial analysis tasks and organizational decision making?

Select one:

- ☒ analyzed data
- ☐ saved data
- ☐ transactional data
- ☐ raw data



Refer to curriculum topic: 3.1.3

There are two primary types of processed data, transactional and analytical. Transactional information is captured and processed as events happen. Transactional information is used to analyze daily sales reports and production schedules to determine how much inventory to carry. Analytical information supports managerial analysis tasks like determining whether the organization should build a new manufacturing plant or hire additional sales personnel.

The correct answer is: analyzed data

Question 15

Correct

Mark 2.00 out of 2.00

What characterizes data management problems associated with big data storage?

Select one:

- ☐ ensuring that data is accessible from anywhere at anytime
- ☐ making data only available to authorized users
- ☐ maintaining the integrity of stored data
- ☒ generating and collecting data from multiple sources



Refer to curriculum topic: 3.1.2

Because data can be generated and collected from multiple different sources, a management system must be used to organize and collate all of the data sources.

The correct answer is: generating and collecting data from multiple sources

[◀ Chapter 3: Terms and Concepts Practice](#)[Read Chapter 4: Everything can be Automated ▶](#)

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