In the context of Data Science Big Data, generate 12 relatively straightforward random multiple choice questions on Kafka that would suit a first year Data Science university student. Put the answers at the end.

Question 1:

What is Apache Kafka primarily used for?

A) Data storage

B) Data processing

C) Data visualization

D) Message streaming

Question 2:

Which language is Apache Kafka written in?

A) Java

B) Python

C) C++

D) JavaScript

Question 3:

What is a Kafka producer responsible for?

A) Consuming messages

B) Storing messages

C) Publishing messages

D) Processing messages

Question 4:

What is a Kafka topic?

A) A group of consumers

B) A configuration setting for Kafka producers

C) A categorization of messages

D) A type of data storage

Question 5:

What does Kafka use to store and process its messages?

A) Queue

B) Stack

C) Array

D) Log

Question 6:

Which of the following is not a component of a Kafka cluster?

A) Broker

B) Producer

C) Zookeeper

D) Consumer

Question 7:

What is the main function of a Kafka broker?

A) To maintain the order of messages

B) To route messages between producers and consumers

C) To store messages in topics

D) To authenticate users

Question 8:

What is the purpose of partitions in Kafka?

A) To balance the load among consumers

B) To compress the message size

C) To enforce message ordering

D) To store metadata about topics

Question 9:

In a Kafka cluster, what role does Zookeeper play?

A) Message storage

B) Cluster management and coordination

C) Data processing

D) Data visualization

Question 10:

Which of the following is not a guarantee provided by Kafka?

A) At least once delivery

B) Exactly once delivery

C) In-order delivery within a partition

D) In-order delivery across all partitions

Question 11:

What is the default retention period for messages in a Kafka topic?

A) 7 days

B) 24 hours

C) 1 month

D) Infinite

Question 12:

Which of the following is a key feature of Apache Kafka?

A) Low-latency message streaming

B) High-level data processing

C) Interactive data visualization

D) In-memory data storage

Answers:

1) D

2) A

3) C

4) C

5) D

6) C

7) C

8) A

9) B

10) D

11) D

12) A