1. What is Data Science?

A)Data science is the study of data to extract meaningful insights for business. It is a multidisciplinary approach that combines principles and practices from the fields of mathematics, statistics, artificial intelligence, and computer engineering to analyze large amounts of data.

2. Importance of statistics in Data Science?

A)Advanced machine learning algorithms in data science utilize statistics **to identify and convert data patterns into usable evidence**. Data scientists use statistics to collect, evaluate, analyze, and draw conclusions from data, as well as to implement quantitative mathematical models for pertinent variables.

3. What is Data engineering?

A)Data engineering helps make data more useful and accessible for consumers of data. To do so, ata engineering must source, transform and analyze data from each system. For example, **data stored in a relational database is managed as tables, like a Microsoft Excel spreadsheet**.

4. What is Data visualization?

A)Data visualization is the graphical representation of information and data. By using v[isual elements like charts, graphs, and maps](https://www.tableau.com/data-insights/reference-library/visual-analytics), data visualization tools provide an accessible way to see and understand trends, outliers, and patterns in data.

5. What is Data cleaning?

A)Data cleaning is the process of fixing or removing incorrect, corrupted, incorrectly formatted, duplicate, or incomplete data within a dataset. When combining multiple data sources, there are many opportunities for data to be duplicated or mislabeled.

6. What is python and why we use it?

A)Python is **a computer programming language and also known as high-level programming language.**Python is commonly used for developing websites and software, task automation, data analysis, and data visualization.

. Python is a general-purpose language, meaning it can be used to create a variety of different programs and isn't specialized for any specific problems.

7. What is Data in statistics?

A)There are different types of data in Statistics, that are collected, analysed, interpreted and presented. The data are **the individual pieces of factual information recorded, and it is used for the purpose of the analysis process**.

8. What is statistcs?

A)**Statistics** is the study of the collection, analysis, interpretation, presentation, and organization of data. In other words, it is a mathematical discipline to collect, summarize data. Also, we can say that statistics is a branch of applied mathematics.

9. What is mathematics ?

A)Mathematics is a subject that deals with numbers, shapes, logic, quantity and arrangements. Mathematics teaches to solve problems based on numerical calculations and find the solutions.Mathematics is **the science and study of quality, structure, space, and change**.

10. What is computer Science?

A)Computer Science is **the study of computers and computational systems**. Unlike electrical and computer engineers, computer scientists deal mostly with software and software systems; this includes their theory, design, development, and application.

11. What is programming language?

A)  A programming language is **a system of notation for writing computer programs**. ... Most programming languages are text-based formal languages,A programming language is a **computer language** that is used by **programmers (developers) to communicate with computers**. It is a set of instructions written in any specific language ( C, C++, Java, Python) to perform a specific task.

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