1. **What is the role of analytics in data science?**

- [ ] Analytics is not important in data science
- [ ] Analytics helps interpret the results
- [ ] Analytics focuses on business understanding
- [ ] Analytics is a subset of data science

2. **Which concept consists of the use of machines to perform tasks based on algorithms?**

- [ ] Artificial intelligence
- [ ] Machine learning
- [ ] Deep learning
- [ ] NLP - Natural Language processing

3. **What is the purpose of NLP - Natural Language processing?**

- [ ] To extract valuable information from text
- [ ] To recognize and translate spoken language
- [ ] To identify and classify objects in images
- [ ] To perform tasks based on algorithms

4. **What are the characteristics of big data?**

- [ ] Volume, variety, velocity, veracity, and value
- [ ] Size, speed, structure, sources, and solutions
- [ ] Quantity, quality, quickness, questionability, and quantification
- [ ] Variables, velocity, visualization, verification, and vitality

5. **What is the process of ETL?**

- [ ] Extract, transform, loop
- [ ] Extract, transform, load
- [ ] Extract, tune, load
- [ ] Extract, transform, link

6. **How is data captured passively?**

- [ ] The user is conscious that the data is being captured
- [ ] The user does not realize that the data is being captured
- [ ] The data is actively collected from various sources
- [ ] The data is randomly collected without user interaction

7. **What are some reasons why data science is important?**

- [ ] Cost reduction, time reduction, and innovation
- [ ] Financial gain and product development
- [ ] Precision and differentiation from competitors
- [ ] All of the above

8. **What is data monetization?**

- [ ] Keeping data private for internal operations
- [ ] Selling data as a product or offering premium access
- [ ] Trading data with partners for mutual benefits
- [ ] Making data available to users for free

9. **What are the steps involved in data science?**

- [ ] Business problem, data fusion, data modeling, deploy
- [ ] Data acquisition, data preparation, data cleaning, exploratory analysis
- [ ] Research, data privacy, iterative process, regulations
- [ ] Data visualization, communication, and deployment

10. What are the types of machine learning?

- [ ] Supervised learning, unsupervised learning, semi-supervised learning, and reinforcement learning
- [ ] Regression, trees, random forest, KNN, and neural networks
- [ ] Anomaly detection, trend finding, pattern recognition, and clustering
- [ ] All of the above

11. What are the "5Vs" of Big Data and how do they contribute to its significance?

- [Variation] How do the "5Vs" of Big Data contribute to its significance and what are they?
- [Variation] In what ways do the "5Vs" of Big Data contribute to its significance and what are they?
- [Variation] What is the significance of the "5Vs" of Big Data and how do they contribute?
- [Variation] How do the "5Vs" of Big Data contribute to its importance and what are they?

12. Explain the difference between supervised and unsupervised learning in machine learning.

- [Variation] Can you provide an explanation of the disparities between supervised and unsupervised learning in machine learning?
- [Variation] Could you elaborate on the contrasts between supervised and unsupervised learning in machine learning?
- [Variation] How do supervised and unsupervised learning differ from each other in machine learning?
- [Variation] What is the distinction between supervised and unsupervised learning in the context of machine learning?

13. How does data privacy differ from data security and why is it important in data science?

- [Variation] What sets data privacy apart from data security, and why is it significant within the realm of data science?
- [Variation] In what ways does data privacy contrast with data security, and what makes it crucial in the field of data science?
- [Variation] How is data privacy distinct from data security, and what makes it valuable in the context of data science?
- [Variation] What are the disparities between data privacy and data security, and why is it pertinent in the realm of data science?

14. Describe the steps involved in the data science process, from problem definition to model deployment.

- [Variation] From problem identification to the deployment of models, outline the stages encompassed in the data science process.
- [Variation] Elucidate the sequential procedures followed in the data science process, starting from problem definition to model deployment.
- [Variation] Detail the steps undertaken throughout the data science process, commencing with problem formulation and concluding with model deployment.
- [Variation] Break down the data science process into its constituent steps, from defining the problem to deploying the models.

15. What are the main types of machine learning algorithms, and what are their specific applications?

- [Variation] 1. What are the primary categories of machine learning algorithms, and how are they utilized in specific contexts?
- [Variation] Could you provide an overview of the primary machine learning algorithm classifications and their respective applications?
- [Variation] Which are the main classifications of machine learning algorithms, and how are they specifically employed in various domains?
- [Variation] Could you outline the key machine learning algorithm types and shed light on their specific applications?