1. How would you define Machine Learning?

   Machine learning is a type of Artificial Intelligence, and it will allow computer to learn from data without being explicitly programmed, ML allows various kinds of data in numerical form and it will find patters and make accurate predictions with learned data.

2. Can you name four types of problems where it shines?
   - Spam filtering
   - Customer Segment analysis
   - Recommendation systems
   - Credit card fraud detection
   - House price prediction
   - Flight Price prediction
   - Diabetes Classification
   - Energy Level Forecasting
   - Stock Market Prediction

3. What is a labeled training set?

   If we have historical data with completed values, it called as labeled datasets and labeled datasets can be used to train supervised learning algorithms and we provide both input and output features to train the model.

4. What are the two most common supervised tasks?

   Regression
   Classification

5. Can you name four common unsupervised tasks?

   Clustering
   Principle Component Analysis
   Association Rule Mining

6. What type of Machine Learning algorithm would you use to allow a robot to walk in various unknown terrains?

   Supervised Learning Algorithm

7. What type of algorithm would you use to segment your customers into multiple groups?

   Clustering Algorithms can be used to Customer Segmentations.

8. Would you frame the problem of spam detection as a supervised learning problem or an unsupervised learning problem?

   Supervised Learning Classification Problem.

9. What is an online learning system?

   online learning is a combination of different techniques of ML where data arrives in sequential order and the learner (algorithm/model) aims to learn and update the best predictor for future data at every step. Online learning can overcome drawbacks of offline learning like models can be updated instantly for any change in data. Therefore, online learning is far more efficient and scalable for large-scale learning tasks in real-world data, analytics, and various applications where data is not only large in size but also arrives at high velocity.

10. What is out-of-core learning?

    Out-of-core learning refers to the machine learning algorithms working with data cannot fit into the memory of a single machine, but that can easily fit into some data storage such as local hard disk or web repository.