1. Define Version space and illustrate it with an example.
2. Explain steps of candidate elimination algorithm. Apply the algorithm to obtain the final version space for the given training set.

| Example | *Sky* | *AirTemp* | *Humidity* | *Wind* | *Water* | *Forecast* | *EnjoySport* |
|---|---|---|---|---|---|---|---|
| 1 | Sunny | Warm | Normal | Strong | Warm | Same | Yes |
| 2 | Sunny | Warm | High | Strong | Warm | Same | Yes |
| 3 | Rainy | Cold | High | Strong | Warm | Change | No |
| 4 | Sunny | Warm | High | Strong | Cool | Change | Yes |

3. Briefly explain about Components of learning Process.
4. Briefly explain about Multiple Linear Regression with an example.
5. Explain Logistic Regression with an example.
6. Briefly explain Support vector machines and its types.
7. Explain K-Nearest Neighbors and its working in detail.
8. How does the K-means clustering algorithm work? Illustrate its steps with an example.
9. Explain working of Neural Network
10. What is Principal Component Analysis (PCA)? How does it work, and how is it used in unsupervised learning? Explain with an example.
11. Define clustering. What are the different types of clustering techniques?