

## **2-Mark Questions:**

1. What is the history of Deep Learning?
2. Define Backpropagation in neural networks.
3. What is regularization in machine learning?
4. What is the purpose of batch normalization in neural networks?
5. What does the VC dimension measure in neural networks?
6. How do deep networks differ from shallow networks?
7. What is the key feature of Convolutional Neural Networks (CNNs)?
8. What are Generative Adversarial Networks (GANs)?
9. What is semi-supervised learning?
10. What is a probabilistic theory of Deep Learning?
11. What is the role of non-linearity in deep neural networks?
12. Explain the concept of overfitting in machine learning.
13. What are hidden layers in neural networks?
14. What is the function of an activation function in neural networks?
15. What is dropout regularization?

## **16-Mark Questions:**

1. Discuss the history of Deep Learning, highlighting key milestones in its development.
2. Explain the process of Backpropagation and its role in training neural networks.
3. Discuss the concept of regularization in neural networks. How do techniques like L2 regularization, dropout, and batch normalization help prevent overfitting?
4. Explain the concept of Generative Adversarial Networks (GANs) and their applications.
5. Compare Deep Networks and Shallow Networks. Discuss the advantages and disadvantages of deep networks.
6. Explain Batch Normalization