**ACTIVITY #3**

1. **Multiple -choice questionnaire**

1. What is the purpose of an activation function in a neural network?

- A. Assigning weights to inputs

- B. Determining the importance of variables

- C. Adjusting parameters during training

- D. Deciding whether a node should be activated

2. Which optimization algorithm is commonly used for adjusting weights in neural network training?

- A. Random Forest

- B. Gradient Descent

- C. K-Means

- D. Support Vector Machine

3. What role does backpropagation play in neural network training?

- A. Initializing network weights

- B. Propagating information forward

- C. Calculating gradients and adjusting parameters

- D. Activating nodes in the output layer

4. Which neural network type is primarily used for image recognition and computer vision?

- A. Feedforward Neural Network

- B. Recurrent Neural Network

- C. Convolutional Neural Network

- D. Perceptron

5. In the context of neural networks, what does the term "deep" refer to in deep learning?

- A. The complexity of mathematical operations

- B. The number of layers in the network

- C. The variety of activation functions used

- D. The presence of feedback loops