Assignment – Artificial Neural Network (ANN)

1) What are numerical libraries available for the ANN? Name at least two of them? List minimum 5

applications of ANN?

2) Write a simple python code for ANN just with input and output nodes. Include forward propagation and backward propagation? Explain why we have to use them? In detail:

What is Epoch?

If you are using built-in functions, explain the parameters, for example, dense, loss, optimizer and

metrics.

3) Write a python code for ANN with a minimum of two hidden layers (with N number of neurons)

Show the error between total loss and training loss?

How to choose the batch size?

What is the activation function? Why are they used? Explain different activation functions? If you are using built-in functions, explain the parameters, for example, dense, loss, optimizer and metrics.

Presentation:

- 1) Deadline: 04/05/2022
- 2) Send me the code (2 python codes and also input files)
- 3) Work in a group of 2-3 people per group
- 4) Each group should present their work on 04/05/2022