1. Implement Data Manipulation (Numpy library) Operations Broadcasting Indexing and slicing. Also display head, tail, size of data and remove null values from the data set.
   (Take your own dataset which is in the form of .csv)

2. Implement data Preprocessing Reading the Dataset Handling Missing Data Conversion to the Tensor Format (Take your own dataset which is in the form of .csv)

3. Implement Linear Algebra Tensors Tensor arithmetic Implementing matrix multiplication (minimum four possible operations are necessary) .

4. Implement McCulloch Pitts neural network using Tensorflow
   (Explain with suitable example)

5. Implement feed forward single layer perceptron with suitable example.

6. Implement Forward pass with matrix multiplication Forward pass with hidden layer (matrix multiplication) Forward pass with matrix multiplication with Keras Forward passes with hidden layer (matrix multiplication) with Keras.

7. Implement multilayer perceptron with back propagation (student should implement mathematical operations of back propagation with suitable example).

8. Implement CNN operation to darken the Image.

9. Implement CNN operation to sharpen the Image.

10. Implement CNN operation to vertical edge detection of an Image.

11. Implement CNN operation to horizontal edge detection of an Image.

12. Implement A simple CNN Make a train and validation dataset of images with vertical and horizontal images Defining the CNN to predict the knowledge from image classification Visualising the learned CNN Model.

13. Implement MNIST digit classification before and after shuffling Train CNN on Original Data Train CNN on shuffled data

14. Using a pre-trained Imagenet network to predict images into one of the 1000 Imagenet classes.

15. Implement Simple RNN with suitable example.

16. Implement Deep RNN with suitable example.