**Topic: Recurrent Neural Network (RNN)**

**Instructions:**

**1. Business Problem**

* 1. **Objective**
  2. **Constraints (if any)**

**Using Python perform:**

**2. Data Pre-processing (if applicable)**

**2.1 Data cleaning, Feature Engineering etc.**

**3. Exploratory Data Analysis (EDA): (if applicable)**

**3.1. Summary**

**3.2. Univariate analysis**

**3.3. Bivariate analysis**

**4. Model Building**

**4.3 Using Python libraries perform the below tasks**

**5. Result Share the benefits/impact of the solution - how or in what way the business (client) gets benefit from the solution provided. (If applicable)**

**Note:**

The assignment should be submitted in the following format:

* Python code
* Code Modularization should be maintained
* Documentation of the modules (elaborating on steps mentioned above).

1. Here is the time series data [110, 125, 133, 146, 158, 172, 187, 196, 210].

Build RNN/LSTM model to predict the next 10 digits.

2. Write down the multiple applications of RNN.

3. How to do select the inputs for a LSTM/RNN models. Explain in the terms of timesteps, samples and feature.

4. What are the disadvantages of MLP when dealing with sequence data.