Machine Learning Quiz-1

Duration: 30 min   **Marks: 15**

Dataset: `https://raw.githubusercontent.com/fazlyrabbi77/Time-Series/master/bd-tax-gdp-pop.csv`

Instruction: *Please import the given dataset and answer the following questions by hand & send your scanned answer script (pdf version) to ptt.swe2@diu.edu.bd .* ***Marks will be deducted for late submission.***

01. Run an OLS test, considering TAX is the target variable, and write down the followings:
    a) Which variables are significant   (2)
    b) Interpret, R squared, Adjusted R squared, and Prob F-Statistic   (3)

02. Write down a regression equation using the OLS result   (3)

03. Build a Machine Learning Model using the significant variables with 30% test data and random state =5, considering TAX is the target variable. What is the Intercept Value?   (3)

04. What is the Accuracy of this Model?   (2)

05. Predict the TAX where YEAR=2023 and GDP= 12501   (2)