# Cx1115 : Theory Quiz : Sample

- There are 5 questions in this quiz. Total points are 10. Marks for the questions may be different. **Attempt ALL.**
- In there is any confusion regarding the correct answer(s), choose the one(s) that seem(s) the most appropriate.
- You are allowed 7 minutes to complete the quiz. All questions will appear together on a single page (scrolling).
- Please remember to "Save and Submit" the quiz, once you are done. You will see a timer and relevant warnings.

## Rules

You are allowed to use your Pen/Pencil and Calculator. You will be provided with a blank sheet of paper for rough work. Possession of any personal gadget or electronic device (other than calculator) is prohibited during the quiz. Please keep all your belongings in a bag, and store away for the entire duration of the test. Please talk to the Lab In-Charge and your TA immediately if you face any problem whatsoever with the Lockdown Browser or with accessing the quiz questions.

## Questions

1. Which kind of Data Science problem does Spam Filters solve in your email service? They generally decide if an email is a genuine email or spam.

   ☐ Regression ☐ Classification
   ☐ Clustering ☐ Forecasting

   (1 marks)

2. What is the most appropriate characterization of the MRT Map of Singapore?

   ☐ Structured Categorical Data ☐ Unstructured Text Data
   ☐ Numeric Time Series Data ☐ Network or Graph Data

   (1 marks)

3. What proportion of a data is greater than or equal to its Third Quartile (Q3)?

   ☐ 25% ☐ 50% ☐ 75% ☐ 95%

   (2 marks)

4. If after Linear Regression, the Mean Squared Error (MSE) is 25 and the Variance of the Response Variable is 100, what is the value of the Explained Variance ($R^2$)?

   ☐ 0.25 ☐ 0.50 ☐ 0.75 ☐ 1.00

   (4 marks)

5. Which mode of visualization is the best for comparing the prices of two products?

   ☐ Bubble-Chart, with Prices as Area ☐ Bar-Plot, with Prices as Length
   ☐ Pie-Chart, with Prices as Sectors ☐ Heatmap, with Prices as Colors

   (2 marks)