

**WQD7001: Principles of Data Science**

**Semester 2, Session 2022/2023**

**ALTERNATIVE ASSESSMENT TWO (AA2) – 20 MARKS**

**(An Individual task)**

**Kindly read the instructions:**

1. Format of the Answers:

i. For filename, kindly save your answers in PDF format using the following template: NAMEIDNUMBER.pdf. Example, if your name is Anne and your ID number is 17143630, then save your file as Anne17143630.pdf.

ii. Please make sure you write down your name and ID number in the Answer script.

2. When students are in the online assessment (i.e. the AA2), the students CANNOT communicate with one another in any way during the assessment period. Assessment through online platform obliges students to adhere themselves with discipline and integrity.

3. Submit the file via the Submission link given in Spectrum. If students are unable to submit the answers due to technical issues, contact Dr. Rohana or Assoc. Prof. Dr. Norisma ASAP or within the stipulated time given.

4. Answer ALL questions.

## **ALTERNATIVE ASSESSMENT 2 (AA2) – The Questions**

Read the following journal article and answer the next TWO questions:

<https://arxiv.org/abs/2305.07731>

### **Question 1.**

As a data scientist, use an infographic to summarise the New Zealand example case study to our Malaysian community, so that our public will be ready with any new pandemic cases. You must apply the story telling and data visualization elements such as adding appropriate graphs and texts in order to make it easier to comprehend.

The paper suggested that for its future work, “we plan to extend our work for real-time prediction and global scale”. Explain TWO possible issues that they will face in extending this work. List down THREE ethical guidelines, which need to be followed by the researchers.

**(10 marks)**

### **Question 2.**

Using any Malaysia Covid-19 Dataset examples, do exploratory data analysis (EDA) and suggest any future analytic insight from the findings. Prepare a presentation with maximum of 10 slides (including title, references and appendix - example resources) consist of the following:

- i. Title
- ii. Introduction.
- iii. DataSet (what, when, where, why, how)
- iv. EDA (eg. 5 summary statistics)
- v. the proposed ‘insight’ (flowchart/ graph)
- vi. Conclusion (results, future)
- vii. References
- viii, ix, x. Appendix: i.e. Dataset examples, design, word-cloud, dashboard, etc.

**(10 marks)**