Take Home Test
Duration: *To be submitted within 7-days from the examination date.*
Matric No.: __________

**Answer only FOUR questions between Questions 1 to 9.** Provide the answer in the given answer book.

1. Explain in detail about the systematic grid sampling method for soil data collection. You may illustrate to answer the question. (10 marks)

2. Montmorillonite is 2:1 clay. What is meant by 2:1 clay? Please provide detail explanation of this type of clay with some example. (10 marks)

3. Ultisol and Oxisols are mineral soils, meanwhile peat is organic soils. What is meant by mineral soils and organic soils, and what are the differences? (10 marks)

4. Describe in detail about semi-detail soil survey for a land size of 100 hectare proposed for palm oil plantation. Please explain on how to proceed with the survey and the necessary steps. (10 marks)

5. Soil pH is an important factor that governs the nutrient availability in soil. Soils in Malaysia have pH around 3 to 5, which is high to moderate acidity in nature. Please explain why Malaysian soils are mainly acidic? (10 marks)

6. Color is a morphological indicator of soil condition. Based on Munsell soil color chart, describe in detail about the importance of color is soil classification. (10 marks)

7. Soil with more than 60% clay in its texture is a potential carbon sequester. Explain what is meant by “Net Carbon Sink”? (10 marks)

8. Soil pit is required for soil profile description. Write down the apparatus, process and procedure for in-situ soil profile description in detail. (10 marks)

9. Explain about BRIS soils, their distribution, limitations and potentials. Plus, make a suggestion on how to improve the BRIS soils. (10 marks)

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