



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2022/2023**

- COURSE NAME : WASTE MANAGEMENT
COURSE CODE : DAU 22102
PROGRAMME CODE : DAU
EXAMINATION DATE : JULY/ AUGUST 2023
DURATION : 2 HOURS 30 MINUTES
INSTRUCTION : 1. ANSWER ANY **FIVE (5)** QUESTIONS
2. THIS FINAL EXAMINATION IS CONDUCTED VIA **CLOSED BOOK.**
3. STUDENTS ARE **PROHIBITED** TO CONSULT THEIR OWN MATERIAL OR ANY EXTERNAL RESOURCES DURING THE EXAMINATION CONDUCTED VIA CLOSED BOOK

THIS QUESTION PAPER CONSISTS OF **FOUR (4)** PAGES

- Q1.** a. i. Define waste management. (1 mark)
- ii. Identify the **four (4)** waste management organizations in Malaysia and their responsibilities. (4 marks)
- iii. Describe and give examples of **five (5)** types of scheduled solid waste managed by SWCorp. (5 marks)
- b. Give reasons for the importance of solid waste management in terms of:
- i. Environmental protection
 - ii. Public health
 - iii. Resource conservation
 - iv. Economic benefits
 - v. Climate change improvement
- (10 marks)
- Q2.** a. Briefly explain about elements of solid waste management. (12 marks)
- b. Explain **four (4)** approaches to decreasing the volume of waste to be disposed of for final disposal. (8 marks)
- Q3.** a. i. Define leachate (1 mark)
- ii. Describe how leachate can cause hazard. (3 marks)
- b. Differentiate sanitary landfill and inert landfill in terms of type of waste, environmental safety, lining system, maintenance, cost and common uses. (12 marks)
- c. State and describe **two (2)** ways that landfill system can generate energy. (4 marks)

- Q4** a. Plan a way to manage the following agricultural wastes.
- i. Leaf litter alongside the road. (2 marks)
 - ii. Cornfield. (2 marks)
 - iii. Livestock wastewater. (4 marks)
 - iv. Damaged fruit in the warehouse. (2 marks)
- b. Technological advances help farmers convert waste into salable materials. Identify new products that can be produced from selected waste and explain the process involved.
- i. Paddy straw. (4 marks)
 - ii. Saw dust. (4 marks)
 - iii. Aquaculture effluent. (2 marks)
- Q5** a. Palm oil mills generate a lot of solid, liquid, and gaseous waste. Identify the waste and plan an appropriate solution for each waste.
- i. Solid waste. (4 marks)
 - ii. Liquid waste (4 marks)
 - iii. Gas waste (4 marks)
- b. Discuss the advantages and disadvantages of waste Disposal Fees implemented for industries. (4 marks)
- c. List **four (4)** challenges of electronic product recycling. (4 marks)

- Q6**
- a. Suggest **three (3)** ways that the government can do to encourage people to recycle. (4 marks)
 - b. Describe briefly the waste management issues globally. (4 marks)
 - c. Discuss why waste management is a global issue and the impact of implementation on a global scale. (8 marks)
 - d. Compare the approaches and waste management policies taken by different countries. (4 marks)

- END OF QUESTIONS -