

## UNIVERSITI TUN HUSSEIN ONN MALAYSIA

## FINAL EXAMINATION (ONLINE) SEMESTER II SESSION 2020/2021

COURSE NAME : ENVIRONMENTAL MANAGEMENT

COURSE CODE : MFA 10503

PROGRAMME : MFA

EXAMINATION DATE : JULY 2021

DURATION : 4 HOURS

INSTRUCTION : ANSWER ALL QUESTIONS

**CLOSE BOOK EXAMINATION** 

THIS QUESTION PAPER CONSISTS OF **THREE (3)** PAGES

TERBUKA CONFIDENTIAL Q1 (a) Discuss on how micro-farming in urban area could contribute to the sustainable development in one city. Correlate how this practise could influence the economy efficiency, social equity and environmental responsibility.

(10 marks)

(b) During a pandemic season, food stalls are allowed to operate as an opportunity for income generation especially for those who are affected. However, it is reported the fat, oil and grease (FOG) has been increased and the accumulation of FOG lead to clogged the sewer lines. Provide **THREE** (3) effects to the environment and suggest **TWO** (2) management strategies to combat this issue.

(10 marks)

Q2 (a) Lack of public surveillance during the movement control order (MCO) has caused a spike in illegal rubbish dumping as reported by the local authority. Considering a 'Reduction at Source' in waste management hierarchy, propose and justify the **TWO (2)** most effective methods to combat this issue.

(10 marks)

- (b) National Solid Waste Management Department revealed that the amount of fabric waste entering Malaysian landfills had increased for a decade. Design with an aid of a schematic diagram on waste management technique for fabric waste industry management. Include and explain FOUR (4) cleaner technologies techniques below:
  - (i) Inventory management

(2.5 marks)

(ii) Production process modification

(2.5 marks)

(iii) Volume reduction

(2.5 marks)

(iv) Recovery

(2.5 marks)

Q3 (a) A new company is planning to register for ISO 14001. Propose and explain to the company's management the **FIVE** (5) steps of EMS implementation for ISO 14001 registration.

(10 marks)

(b) A packaging company aims to reduce waste by 80% per year. The internal audit team is planning to conduct a waste audit. Prepare a proposed flow for management of an audit program.

(10 marks)

Q4 (a) Discuss the most significant environmental impact of transportation infrastructure during construction phase towards soil, water and air. Propose ONE (1) possible solution for each effect.

(10 marks)

(b) Traffic noise is one of the major environmental nuisances in urban area. Explain on how traffic could induce vibration in buildings.

(10 marks)
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**Q5** (a) Describe the main aim of EIA. Evaluate the main factors in a form that will enable the 'Approving Authority' to make appropriate decisions.

(10 marks)

- (b) The City A coastal reclamation project will be developed with 5,000-acre area. There are potential impacts to environment during construction as follows. As an EIA consultant, propose mitigation measures for each issues;
  - (i) The highest impact during reclamation activities is the water quality which could harm endangered aquatic life and the seagrass

(3 marks)

- (ii) Change the hydraulic patterns and may cause erosion to another side of coastal (3 marks)
- (iii) Disposal of dredged materials using barges have the risk of material spillage in the journey to the dumping site.

(4 marks)

-END OF QUESTIONS-