



UNIVERSITI KUALA LUMPUR
Malaysian Institute of Marine Engineering Technology

FINAL EXAMINATION
MARCH 2025 SEMESTER SESSION

SUBJECT CODE : LOB31303
SUBJECT TITLE : SEAPORT AND TERMINAL OPERATIONS
PROGRAMME NAME : BACHELOR IN MARITIME OPERATIONS (HONOURS)
(FOR MPU: PROGRAMME LEVEL)
TIME / DURATION : 9.00 AM - 12.00 PM
(3 HOURS)
DATE : 28 JUNE 2025

INSTRUCTIONS TO CANDIDATES

1. Please read **CAREFULLY** the instructions given in the question paper.
2. This question paper has information printed on both sides of the paper.
3. This question paper consists of **TWO (2)** sections; Section A and Section B.
4. Answer **ALL** question in Section A, and **THREE (3)** questions **ONLY** in Section B.
5. Please write your answers on this answer booklet provided.
6. Answer **ALL** questions in English language **ONLY**.

THERE ARE 5 PAGES OF QUESTIONS, INCLUDING THIS PAGE.

SECTION A (TOTAL: 40 MARKS)

INSTRUCTION: ANSWER ALL THE QUESTIONS.

QUESTION 1

Dry bulk terminals frequently handle particulate matter such as grains or minerals, which can lead to the emission of pollutants into the air and cause health risks. Containerization, the practice of storing and transporting items in sealed containers, effectively manages dust by containing it within the containers. This not only enhances the quality of the air but also enhances the safety of workers and diminishes the environmental impact.

- a) Examine **FIVE (5)** measure for dust control at dry bulk terminal.

(10 marks)

- b) Describe **FIVE (5)** advantage of containerization.

(10 marks)

QUESTION 2

Barriers to maritime trade, such as complex regulations or expensive port fees, might impact the vessel service pattern. Shipping companies may alter trade routes in response to restrictions like bureaucratic rules or exorbitant port fees, which results in the avoidance of ports or regions. These changes affect the movement of commodities and can result in inefficiencies within worldwide trading networks.

- a) Describe **FIVE (5)** barriers to maritime trade.

(10 marks)

- b) Discuss **FIVE (5)** important roles of vessel service patterns in the maritime sector, particularly in facilitating the global movement of goods and people across oceans.

(10 marks)

SECTION B (TOTAL: 60 MARKS)

INSTRUCTION: ANSWER THREE (3) QUESTIONS ONLY.

QUESTION 1

Dry ports play a vital role in global trade, acting as inland hubs that facilitate the movement of goods between seaports and inland destinations. Their strategic co-location near seaports ensures efficient transfer of cargo, reducing congestion and transportation costs while enhancing supply chain reliability.

- a) Explain **FIVE (5)** main co-location advantages at dry port.

(10 marks)

- b) Discuss **FIVE (5)** benefit of utilizing dry port.

(10 marks)

QUESTION 2

Port congestion can significantly impact hinterland connectivity. When ports experience congestion, it can lead to delays in cargo handling and transportation, affecting the flow of goods to and from the hinterland. Thus, addressing port congestion is crucial for ensuring seamless connectivity between ports and their hinterlands, facilitating smooth trade operations, and supporting regional growth.

- a) Discuss **FIVE (5)** reason for port congestions.

(10 marks)

- b) Explain **FIVE (5)** factors influencing the Foreland-Hinterland Linkage

(10 marks)

QUESTION 3

Within the domain of port management, the port model functions as a framework for achieving optimal operational effectiveness and strategic development. It outlines the structural framework, operational procedures, and infrastructure layout essential for the port's functioning. Simultaneously, port governance involves the regulatory and managerial duties required for efficient port management.

a) Discuss the **FOUR (4)** main port governance model.

- i. Public Port (2 marks)
- ii. Tool Port (2 marks)
- iii. Landlord Port (2 marks)
- iv. Fully Privatized (2 marks)

b) Explain all **SIX (6)** types of Port Public-Private Partnership (PPP) Model:

- i. Management Contract (2 marks)
- ii. Operating Lease (2 marks)
- iii. ROT (2 marks)
- iv. BTO (2 marks)
- v. BOT (2 marks)
- vi. BOO (2 marks)

QUESTION 4

Green supply management at ports encompasses sustainable practices aimed at reducing environmental impact throughout the supply chain. Similarly, emission management for green cruise ports focuses on mitigating the environmental footprint of cruise ships. Both strategies are interconnected as they contribute to overall sustainability efforts within port operations, aiming to create environmentally responsible maritime hubs that prioritise ecological preservation and minimise adverse effects on surrounding ecosystems.

- a) Discuss **FIVE (5)** Green Supply Chain Management at the port.

(10 marks)

- b) Explain **FIVE (5)** emission management strategies for green cruise practices.

(10 marks)

END OF FINAL EXAMINATION PAPER