



**UNIVERSITI KUALA LUMPUR**  
**Malaysian Institute of Marine Engineering Technology**

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**FINAL EXAMINATION**  
**MARCH 2025 SEMESTER SESSION**

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**SUBJECT CODE** : LOD20803

**SUBJECT TITLE** : FUNDAMENTAL OF SEAPORT MANAGEMENT

**PROGRAMME NAME** : DIPLOMA IN MARITIME MANAGEMENT  
(FOR MPU: PROGRAMME LEVEL)

**TIME / DURATION** : 2.00 PM - 4.30 PM  
(2 HOURS 30 MINUTES)

**DATE** : 30 JUNE 2025

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**INSTRUCTIONS TO CANDIDATES**

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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)** section; 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 the OMR answer script and answer booklet provided.
  6. Answer **ALL** questions in English language **ONLY**.
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**THERE ARE 11 PAGES OF QUESTIONS, INCLUDING THIS COVER PAGE.**

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**SECTION A (Total: 25 marks)**

**INSTRUCTION: Answer ALL questions.**

**Please use the objective answer sheet provided**

1. Which of the following is NOT the main principle of port operations?
  - A. Provision of shelter from the elements
  - B. Cargo and passenger handling
  - C. Support services for ships & airplane.
  - D. A base for industrial development
  
2. This type of ports is mainly related to the commercial sphere as they participate in fishing. Fishing activities can also be treated as a mode of recreation. Which type of port does the statement above describe best?
  - A. Dry Port
  - B. Warm Water Port
  - C. Fishing Port
  - D. Inland Port
  
3. These are the ports in which the water is maintained at warmer temperatures. The biggest advantage of this port is concerned is that the water does not freeze during the frosty winters. Therefore, it is free to operate all year round without a temporary shutdown during the freezing time. Which type of port does the statement above describe best?
  - A. Dry Port
  - B. Warm Water Port
  - C. Fishing Port
  - D. Inland Port

4. Which of the listed below is NOT the common type of commercial container?

- I. Ventilated Containers
- II. Soft-top Containers
- III. Flat racks
- IV. Open-bottom Containers

- A. I and II only
- B. III and IV only
- C. II and IV only
- D. All of the above

5. This type of container is a niche market using specially insulated containers to transport temperature-sensitive goods by keeping the temperature constant, such as below freezing.

Which type of container does the statement above describe best?

- A. Flat rack Container
- B. Open-top Container
- C. Refrigerated Container
- D. Ventilated Container

6. Which type of cargoes that CANNOT be handled in a Dry Bulk Terminal?

- A. Grain
- B. Iron Ore
- C. Fruits
- D. Coal

7. Which of the following services are involved in the safe navigation and docking of ships?

- i. Port Harbour Pilot (Pilotage)
- ii. Port Operator
- iii. Tug Boat Services
- iv. Shipping Agent

Which answer is correct?

- A. I and II only
- B. I and III only

- C. II and IV only
  - D. III and IV only
8. Which of the statement listed below is the best description about RO-RO Terminal?
- A. Capable of handling any type of vehicles.
  - B. Having a Ship-to-Shore crane to assist the movement of loading and unloading cargoes.
  - C. Having "Ramps" as a mechanism to move the wheeled vehicle onboard or offboard the vessel.
  - D. Most of the cargoes are containerized.
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9. Which service is often involved in the inspection and enforcement of maritime safety regulations?
- A. Port Operator
  - B. Government Agencies
  - C. Tugboat Services
  - D. Shipping Agent
10. Which service is primarily involved in the physical handling and management of cargo at the port?
- A. Government Agencies
  - B. Port Operator
  - C. Shipping Agent
  - D. Port Harbour Pilot (Pilotage)
11. Which government agency is primarily responsible for the inspection and clearance of goods entering and leaving the port?
- A. Immigration
  - B. Port Operator
  - C. Port Health
  - D. Customs

12. Which agencies would be involved in the enforcement of national laws and health regulations at the port?

- I. Customs
- II. Immigration
- III. Port Health
- IV. Shipping Agent

Which answer is correct?

- A. I and II only
- B. I, II and III only
- C. II and IV only
- D. I, III and IV only

13. Which service acts as an intermediary between the ship owner and the port authorities?

- A. Port Operator
- B. Shipping Agent
- C. Tugboat Services
- D. Government Agencies

14. Which government agency is responsible for checking the health and sanitation conditions of ships and their crew?

- A. Immigration
- B. Port Operator
- C. Port Health
- D. Customs

15. It relates to the reliability, flexibility, and service standards provided to port users and stakeholders. It encompasses the intangible aspects of port operations that contribute to customer satisfaction and operational excellence.

Which type of port performance categories does the statement above describe best?

- A. Quality Performance
- B. Psychological Performance
- C. Financial Performance
- D. Physical Performance

16. What are the key aspect / components under the Financial Performance?

- A. Revenue Streams, Port Reliability, Flexibility and Labor Force
- B. Port Reliability, Flexibility, Application of Rules, and Customer Service
- C. Berth, Yards, Cranes, Storehouses and Labor Force
- D. Revenue Streams, Cost Efficiency, Profitability, and Investment Returns

17. Identify the key aspects or components categorized under Physical Performance.

- A. Revenue Streams, Port Reliability, Flexibility and Labor Force
- B. Port Reliability, Flexibility, Application of Rules, and Customer Service
- C. Berth, Yards, Cranes, Storehouses and Labor Force
- D. Revenue Streams, Cost Efficiency, Profitability, and Investment Returns

18. What are the key aspect / components under the Quality Performance?

- A. Revenue Streams, Port Reliability, Flexibility and Labor Force
- B. Port Reliability, Flexibility, Application of Rules, and Customer Service
- C. Berth, Yards, Cranes, Storehouses and Labor Force
- D. Revenue Streams, Cost Efficiency, Profitability, and Investment Returns

19. Define the term port congestion.

- A. The process of loading and unloading cargo at a port
- B. The situation where ships are delayed due to overcrowded port facilities
- C. The routine maintenance of port infrastructure
- D. The inspection of goods by customs officials

20. This service provides towing or escorting of other ships. Other tasks are salvage, anchor handling or firefighting. It can generate large towing or pushing forces and should be highly maneuverable.

What type of marine services does the statement above describe best?

- A. Stowage services
- B. Hydrography Services
- C. Tug Boat Services
- D. Pilotage Services

21. Select the marine services offered at ports and terminals from the options given.

- I. Hydrography Services
  - II. Stowage services
  - III. Pilotage Services
  - IV. Cargo Handling Services
- A. I, II, and III only
  - B. II, III and IV only
  - C. I, III, and IV only
  - D. All of the above

22. Which of the following are causes of port congestion?

- I. High cargo volume
  - II. Limited berth space
  - III. Inefficient operations
  - IV. Labor strikes or disruptions
- A. I and II only
  - B. I, II and III only
  - C. II and IV only
  - D. I, II, III and IV

23. Which of the following are types of congestion that commonly occur at ports?

- I. Single-service congestion
- II. Weather-related congestion
- III. Multi-service congestion
- IV. Seasonal congestion

- A. I and II only
- B. I and III only
- C. I and IV only
- D. III and IV only

24. \_\_\_\_\_ is the time it takes for a vessel to unload and load cargo and depart from the port. A shorter it takes indicates higher efficiency.

What is the definition does the statement above describe best?

- A. Container Dwell-Time
- B. Cargo Throughput
- C. Labor Productivity
- D. Turnaround Time

25. This indicates the total volume of cargo (in TEUs or tons) handled by the port over a specific period. Increasing it with minimal resource expansion suggests improved efficiency.

What is the definition does the statement above describe best?

- A. Container Dwell-Time
- B. Cargo Throughput
- C. Labor Productivity
- D. Turnaround Time

SECTION B (Total: 75 marks)

INSTRUCTION: Answer only THREE questions ONLY.

Please use the answer booklet provided.

Question 1

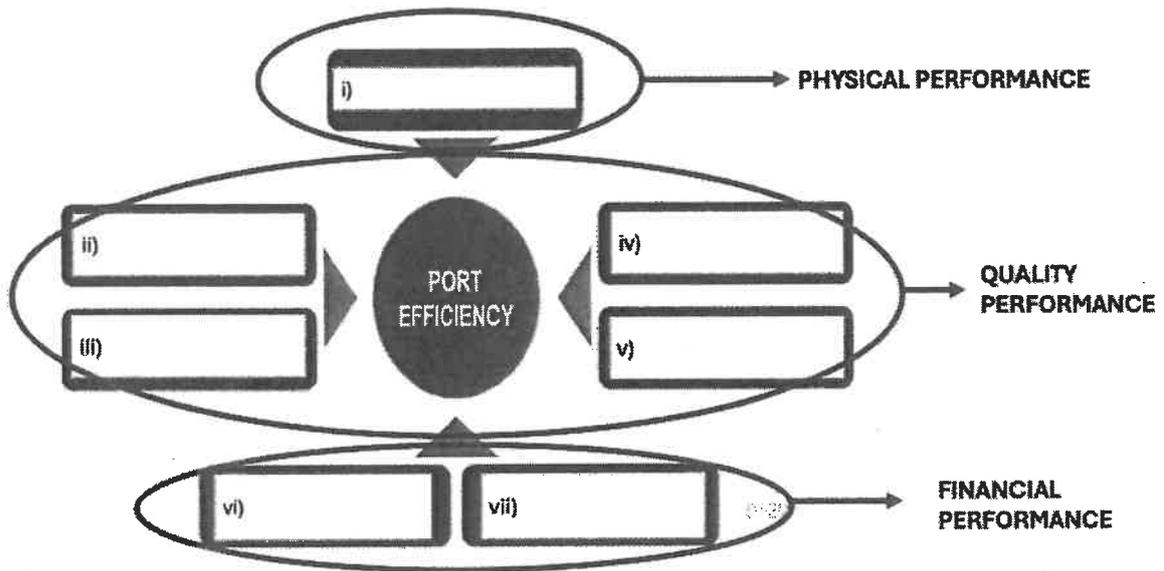


Diagram 1

Physical performance, quality performance, and financial performance, capture different dimensions of port management and evaluate the effectiveness, efficiency, and economic impact of port operations. Ports must balance and optimize performance across these categories to achieve operational excellence, meet customer expectations, and ensure long-term financial sustainability.

a) Based on the “Port Efficiency: A Multidimensional Concept” diagram above, complete the blank space (i), (ii), (iii), (iv) and (v) with the most suitable term representing a port efficiency component.

(5 marks)

b) Define port efficiency and port effectiveness.

(5 marks)

- c) Describe the criteria for Port Performance and Efficiency listed below:
- i. Physical performance (5 marks)
  - ii. Quality performance (5 marks)
  - iii. Financial performance (5 marks)

**Question 2**

An efficiently operated port excels in balancing its performance at all terms. In contrast, a port with inefficient operations struggles in low customer satisfaction and reliability issues. These factors collectively hinder the port's ability to compete effectively, impacting its long-term viability and success.

- a) Define the following terms:
- i. Turnaround time (3 marks)
  - ii. Berth productivity (3 marks)
  - iii. Container dwell time (3 marks)
  - iv. Cargo throughput (3 marks)
  - v. Waiting time for ships (3 marks)

- b) Examine FIVE (5) factors of Port Efficiencies to port operations.

(10 marks)

**Question 3**

Ports must maintain a balance between physical, quality, and financial performance to achieve optimal efficiency and competitiveness. Failure to do so can lead to port congestion and various inefficiencies, which negatively impact cargo handling, turnaround time, and overall service quality, ultimately reducing a port's ability to compete in the global logistics chain.

- a) List FIVE (5) types of maritime terminals.

(5 marks)

a) Explain FIVE (5) common effect of port congestion that contribute to port inefficiencies.

(10 marks)

b) Examine FIVE (5) causes of Port Inefficiencies.

(10 marks)

**Question 4**

Maritime services at ports play a key role in ensuring the smooth, safe, and efficient flow of global trade by supporting cargo handling, regulatory compliance, and environmental protection, while government agencies like Customs, Immigration, and Port Health work together to maintain security, public health, and effective port operations.

b) Identify FIVE (5) types of port activities in port operations.

(10 marks)

c) List FIVE (5) busiest port in the world.

(5 marks)

d) Examine the responsibilities of the following agencies in port operations.

- i. Custom Authority
- ii. Immigration Services
- iii. Port health Authority
- iv. Marine Department of Malaysia (Jabatan Laut Malaysia)

(10 marks)

**END OF EXAMINATION PAPER**