



UNIVERSITI KUALA LUMPUR
Malaysian Institute of Marine Engineering Technology

FINAL EXAMINATION
OCTOBER 2025 SEMESTER SESSION

SUBJECT CODE	: LOD20803
SUBJECT TITLE	: FUNDAMENTAL OF SEAPORT MANAGEMENT
PROGRAMME NAME (FOR MPU: PROGRAMME LEVEL)	: DIPLOMA IN MARITIME MANAGEMENT
TIME / DURATION	: 09.00 AM - 11.30 AM (2 HOURS 30 MINUTES)
DATE	: 26 JANUARY 2026

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)** 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 9 PAGES OF QUESTIONS, INCLUDING THIS COVER PAGE.

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 port is 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. This ports where 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 | C. Refrigerated Container |
| B. Open-top Container | D. Ventilated Container |
6. Which type of cargoes that CANNOT be handled in a Dry Bulk Terminal?
- | | |
|-------------|-----------|
| A. Grain | C. Fruits |
| B. Iron Ore | 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 | C. II and IV only |
| B. I and III 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.
9. Which service is often involved in the inspection and enforcement of maritime safety regulations?
- | | |
|------------------------|---------------------|
| A. Port Operator | C. Tugboat Services |
| B. Government Agencies | 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 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. What are the key aspect under the 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 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. What is 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. Which of the listed below is the Marine Services provided in port and terminal are?

- 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

Choose the correct answer below:

- 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. This measures the time it takes for a vessel to unload and load cargo and depart from the port. A shorter duration indicates higher efficiency.

What is the definition does the statement above describe best?

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

SECTION B (Total: 75 marks)

INSTRUCTION: Answer only THREE questions ONLY.

Please use the answer booklet provided.

Question 1

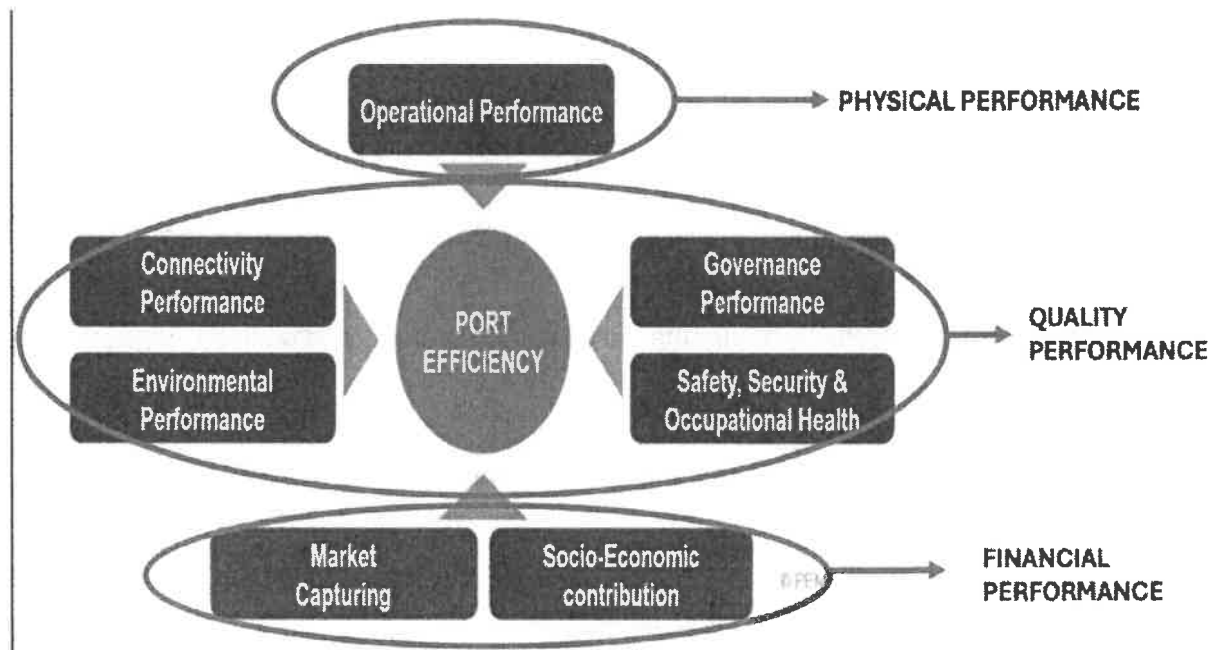


Diagram 1

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) Define the port efficiencies and effectiveness.

(4 marks)

- b) Based on the diagram above, describe each of the component listed below :
- i. Operational Performance (4 marks)
 - ii. Environmental Performance (4 marks)
 - iii. Market Capturing (4 marks)
 - iv. Safety, Security and Occupational Health (4 marks)
- c) In a table, discuss about the different between Financial Performance and Quality 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) Identify **FIVE (5)** factors of port inefficiencies.
- (10 marks)
- b) Discuss the factor to indicate port efficiency.
- (15 marks)

Question 3

Ports must have a balance physical, quality, and financial performance to achieve optimal efficiency and competitiveness. A holistic approach that integrates these three aspects, along with effective stakeholder collaboration, enables ports to adapt to market dynamics, maintain operational excellence, and ensure sustainable long-term success.

- a) Describe the categories of port performance indicator in relation to their effects on market prices.
- i) Physical Performance (10 marks)
 - ii) Quality Performance (10 marks)

- b) Explain the positive impact of port efficiencies.

(5 marks)

Question 4

Maritime services at ports and terminals are pivotal in ensuring the efficient and safe handling of global trade. These services not only facilitate the smooth transit of goods but also uphold regulatory compliance, safety standards, and environmental protection, thereby enabling ports to operate effectively as critical hubs in the international supply chain.

- a) Describe **FOUR (4)** activities that took part within the port & terminal area.

(16 marks)

Government agencies involved in port operations include Customs, Immigration, and Port Health. These agencies collaborate to ensure the smooth, safe, and efficient functioning of port facilities, supporting international trade and maintaining security and public health standards.

- b) In a table, distinguish each roles and responsibilities of these government agencies:

V. Custom Authority	(3 marks)
VI. Immigration Services	(3 marks)
VII. Port health Authority	(3 marks)

END OF EXAMINATION PAPER

