



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

---

**FINAL EXAMINATION (SPECIAL EXAM)**  
**OCTOBER 2025 SEMESTER SESSION**

---

**SUBJECT CODE** : LOD20803

**SUBJECT TITLE** : FUNDAMENTAL OF SEAPORT MANAGEMENT

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

**TIME / DURATION** : 09.00 AM - 11.30 AM  
(2 HOURS 30 MINUTES)

**DATE** : 29 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**.
- 

**THERE ARE 9 PAGES OF QUESTIONS, EXCLUDING 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 service provides assistance to ships by towing or pushing them?
- A. Port Operator                      C. Tugboat Services  
B. Government Agencies                      D. Shipping Agent
7. Which of the cargoes listed below can be handled in a Liquid Bulk Terminal?
- I. Bio-fuels  
II. Grain  
III. Sugar  
IV. Fruit Juice
- A. II and III only                      C. II and IV only  
B. I and IV only                      D. All of the above
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 acts as an intermediary between the ship owner and the port authorities?
- A. Port Operator                      C. Tugboat Services  
B. Shipping Agent                      D. Government Agencies

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)

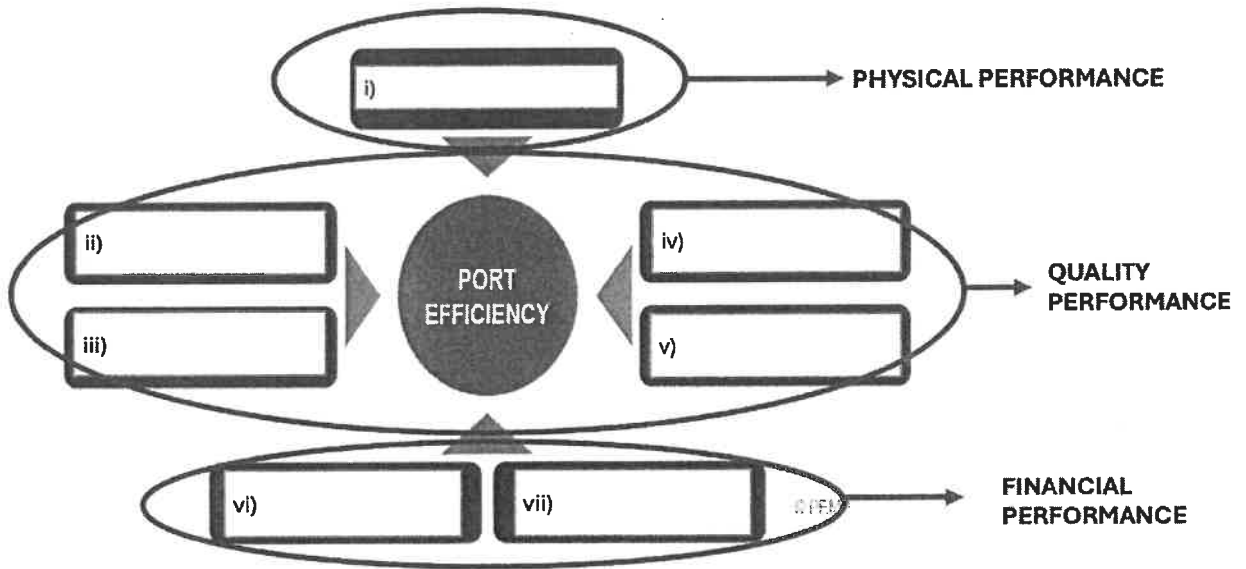


Diagram 1

11. Based on Diagram 1, what is the possible component in (i) to reflect to the port efficiency performance indicator?
- A. Market Capturing
  - B. Connectivity Performance
  - C. Operational Performance
  - D. Sales Performance
12. Based on Diagram 1, what is the possible component in (ii) and (iii) to reflect to the port efficiency performance indicator?
- A. Connectivity Performance, Environmental Performance
  - B. Connectivity Performance, Operational Performance
  - C. Environmental Performance, Market Capturing
  - D. Operational Performance, Socio-economic Contribution

13. By referring to Diagram 1 above, what is the possible component in (vii) to reflect to the port efficiency performance indicator?
- A. Connectivity Performance
  - B. Environmental Performance
  - C. Socio-economic Contribution
  - D. Governance Performance
14. This port performance refers to the efficiency and effectiveness in utilizing its existing assets and facilities to handle cargo and vessels. It encompasses the tangible output and capabilities of the port infrastructure, equipment, and labour force.
- Which type of port performance categories does the statement above describe best?
- A. Quality Performance
  - B. Psychological Performance
  - C. Financial Performance
  - D. Physical Performance
15. This port performance 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 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. What are the key components 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 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. 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
20. Which of the listed below are 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
21. \_\_\_\_\_ means loading, unloading, packing or unpacking of cargo and includes cargo handling services provided for freight in special containers or for non-containerized freight, services provided by a container freight terminal or any other freight terminal, for all modes of transport and cargo handling services incidental to freight, but does not include handling of export cargo or passenger baggage or mere transportation of goods.

Fill in the blank for the suitable marine service.

- A. Tugboat Services
- B. Cargo Handling Services
- C. Pilotage Services
- D. Stowage Services

22. What is the definition of Physical Performance referring to the efficiency of the port?

- A. Port reliability flexibility and application of rules are all included in the quality of port services.
- B. The profit and loss contribution of each category of port operation and service.
- C. Refers to the output of existing assets and facilities. berths, yards, cranes, sheds, storehouses and labour force can be considered.
- D. Commonly refers to the operational performance of ports and the maximization of the produced output with given resources.

23. What is the definition of Financial Performance referring to the efficiency of the port?

- A. Port reliability flexibility and application of rules are all included in the quality of port services.
- B. The profit and loss contribution of each categories of port operation and service.
- C. Refers to the output of existing assets and facilities. berths, yards, cranes, sheds, storehouses and labor force can be considered.
- D. Commonly refers to the operational performance of ports and the maximization of the produced output with given resources.

24. This measures the time the vessel takes to unload and load cargo and depart before departing the port. A shorter duration indicates higher efficiency.

What is the definition best describes the statement above?

- 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?

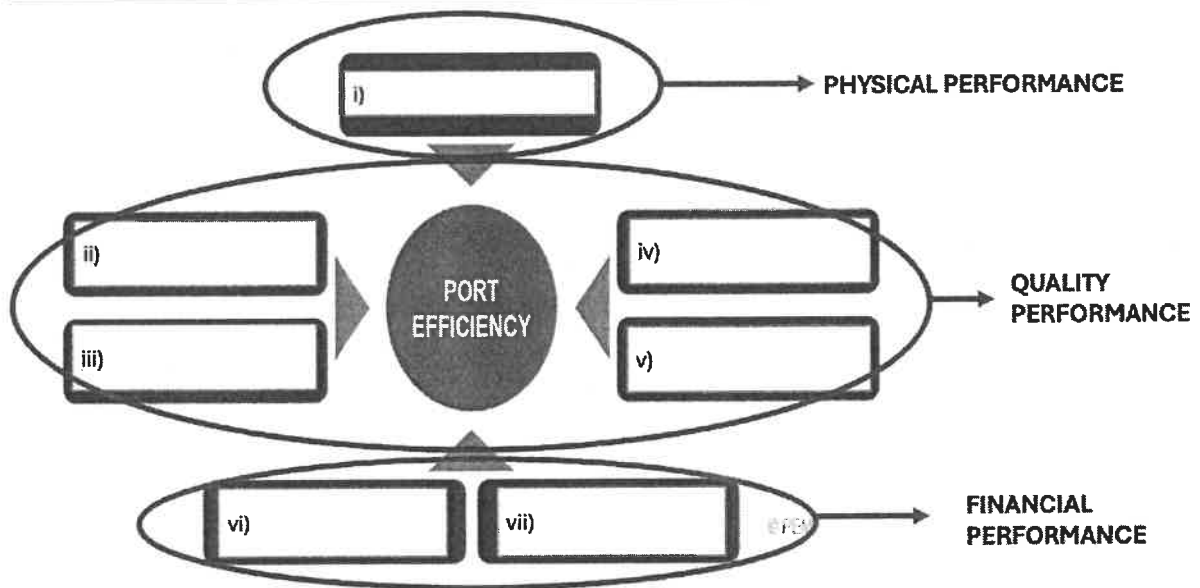
- A. Container Dwell-Time
- B. Cargo Throughput
- C. Labor Productivity
- D. Turnaround Time

## 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 Diagram 1, what is the most suitable term should indicate the blank space as part of the port efficiency components?

(7 marks)

- b) Based on your answer in 1(a), provide a description for each point mentioned.

(18 marks)

**Question 2**

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) Discuss the positive impact of port efficiencies. (5 marks)

**Question 3**

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 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 role and responsibilities of these government agencies:

- |                            |           |
|----------------------------|-----------|
| i. Custom Authority        | (3 marks) |
| ii. Immigration Services   | (3 marks) |
| iii. Port health Authority | (3 marks) |

**END OF EXAMINATION PAPER**

