

**MBA (MM) Sem.-3 Examination****SCP 306****PO&M****Time : 2.30 Hours]****December-2025****[Max.Marks : 70**

Q-1 A) What are the Basic and ancillary services provided by port? Explain 14

Q-2 14

B) How do ports effectively manage capacity utilization and planning to optimize operations, improve efficiency, and handle growing demand?

OR

B) Explain the services provided by a Container Freight Station (CFS) and its importance in port logistics.

Q-3

A) The Port of Rotterdam is attempting to transition towards a synchromodal logistics system that integrates road, rail, and inland waterways through real-time digital coordination. However, the Port Authority faces significant challenges such as lack of data sharing and trust among stakeholders, resistance from major terminal operators, fragmented digital platforms, and the emerging threat of global technology firms entering port logistics. 14

OR

B) What are the various administrative and operational functions involved in port operations, and how do they contribute to the overall efficiency of port management?

Q-4

A) Examine the strategic risks and challenges faced by Navayuga Engineering Company Limited (NECL) in deciding to develop Krishnapatnam Port. In your answer, critically analyze how NECL's leadership vision, financial and PPP strategy, technology adoption, and phased execution approach contributed to successful project implementation, and assess how these factors collectively enabled NECL to emerge as a benchmark private port developer and operator in India. 14

OR

P.T.O

- B) The container vessel MSC arrived at the terminal carrying 2,400 TEUs (Twenty-foot Equivalent Units) of containerized cargo. To handle this volume, the port deployed four quay cranes for simultaneous operations. The total berth occupancy time recorded was 20 hours, which includes both loading and unloading operations. The port operates on a semi-automated Terminal Operating System (TOS) with real-time scheduling and yard planning features.

Using the given scenario, compute the berth productivity and moves per hour for the container vessel operation. Further, identify the key operational factors that contribute to achieving high productivity at the terminal and interpret the results based on the calculated berth productivity and crane performance.

- Q-5      A) Discuss the Stages in Port Management Development and how ports evolved from cargo handling hubs to logistics and supply chain nodes.      14

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Candidate's Seat No: \_\_\_\_\_

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Q-1	A) Describe how demand and supply of sea transport determine freight rates.	14
Q-2	A) Explain the relationship between port congestion and freight rate escalation.  <u>OR</u>  B) A company relies heavily on spot market freight rates. Discuss the risks involved.	14
Q-3	A) Freight rates drop sharply due to excess vessel supply. Explain how exporters benefit from this situation.  <u>OR</u>  B) Why do companies prefer larger ships on some routes and smaller ships on others? Explain using real-world logic, not technical formulas	14
Q-4	A) During a period of high exports from Asia to the US and Europe, millions of empty containers accumulated in destination ports. Asian exporters faced container shortages, leading to shipment delays and higher costs. Questions 1. Explain how international trade patterns lead to container imbalance. 2. Why does container shortage increase freight rates? 3. What is meant by "equipment imbalance surcharge"? 4. How does container imbalance affect small exporters differently from large exporters? 5. Suggest solutions to manage container imbalance in global shipping.  <u>OR</u>	14

P.T.O

	<p>B) A logistics manager noticed that freight rates were extremely high in 2021, moderate in 2022, and very low in 2023. New vessels ordered during the boom were delivered during the low-demand phase.</p> <p>Questions</p> <ol style="list-style-type: none"> <li>1. Identify the phases of the shipping cycle shown in this case.</li> <li>2. Why do shipping lines order new vessels during peak periods?</li> <li>3. How does excess vessel supply affect freight rates?</li> <li>4. What risks do shipping companies face due to cyclical nature of shipping?</li> <li>5. How can understanding the shipping cycle help exporters and importers?</li> </ol>	
<p>Q-5</p>	<p>A) Due to security risks in a major shipping lane, vessels were diverted to longer routes. Transit time increased by 10 days, and freight rates rose sharply.</p> <p>Questions</p> <ol style="list-style-type: none"> <li>1. How does route diversion reduce effective shipping capacity?</li> <li>2. Why does longer transit time increase freight rates?</li> <li>3. What additional costs do shipping lines incur in such situations?</li> <li>4. How does geopolitical risk affect global trade flows?</li> <li>5. Suggest how exporters should plan shipments during such disruptions.</li> </ol>	<p>14</p>