

**INDIAN MARITIME UNIVERSITY**  
(A Central University, Government of India)

**PORT AND TERMINAL MANAGEMENT**  
**SEMESTER – I, SCHOOL OF MARITIME MANAGEMENT-PSM**  
**DEC/JAN 2013-14**  
**SUBJECT CODE: T 1104**

**Date: 19.12.2013**

**Time: 3 Hrs**  
**Maximum Marks: 75**

**SECTION A (10 X 1 = 10Marks)**

*Answer ALL the questions. All questions carry equal mark*

1. A port has many responsibilities together we group as a conservancy function. Four of the below included under this heading. Which is not a conservancy function?
  - a. Dredging of deep water access channels
  - b. Construction of wharfs and cranes.
  - c. Construction of breakwaters
  - d. Provision of navigation lights
  - e. Provision of maintenance of buoys and markers.
  
2. What name do we give to the category of cost that includes quay handling & storage charges?
  - a. Berth cost
  - b. Shore cost
  - c. Wharfage
  - d. Port dues
  - e. Port charge
  
3. There are several operational disadvantages of a very high Berth Occupancy. Which of the following is NOT such a consequences?
  - a. There is little time to plan and prepare cargo-handling operations
  - b. There is insufficient time to consolidate exports
  - c. There is insufficient time to clear sheds of imported cargoes
  - d. There is undesirable strain on labor, equipment and other resources
  - e. There is underutilization of resources
  
4. Which of the following actions will Usable Storage Area of a shed to be increased?
  - a. Opening main doors
  - b. Stacking cargo higher
  - c. Reducing the width of aisle ways
  - d. Clearly numbering the storage bays
  - e. Installing a racking system for small consignments
  
5. What name is given in a contract to the receiver of transported goods, the person or company to which the goods are being sent?
  - a. Consignor
  - b. Consignee
  - c. Consignment
  - d. Shipper
  - e. C & F agent
  
6. The Holding Capacity of a shed depends on four major factors; which of the following is NOT among them?
  - a. The height of the shed
  - b. The stacking Height of the cargo.
  - c. The cargo's Broken Stowage Allowance.
  - d. The stowage Factor of the cargo.
  - e. The shed's Usable storage Area.
  
7. Terminal activities are conventionally divided into a series of 'operations'; which operation corresponds to container 'arrival' for inbound containers?
  - a. The ship operation
  - b. The quay transfer operation
  - c. The container yard operation
  - d. The receipt/delivery operation

8. Which of the following is the correct definition of the Maximum Gross Mass of container?
- The maximum weight of cargo that it can carry
  - The greatest weight of full containers that can be stacked on top of that container
  - The maximum permitted weight of the container and its cargo
  - The weight of the container when it is full of cargo
  - The weight of the fully equipped container when carrying on cargo
9. What is the 'Payload' or 'Net Weight' of a container?
- The weight of the fully equipped container when carrying no cargo.
  - The weight of the container when full
  - The weight that can be stacked on top of the container in the container yard or in stow
  - The volume of cargo that it can carry in its operating condition
  - The maximum permitted weight that it can carry in normal operation condition
10. Which of the following is NOT normally considered a Fixed Cost?
- Salaries of permanent staff
  - Interest on capital borrowed for equipment purchase
  - Wages of hourly-paid
  - Cost of berth construction
  - Cost of building warehouses

**SECTION B (5 x 5 = 25 Marks)**

*Answer any FIVE questions not exceeding 200 words. All questions carry equal mark*

11. What are the major role and functions of seaports in the current state of affairs?
12. Examine a number of types of berths and their salient features.
13. Define the following terms.  
(a) EEC (d) TRT (c) OBO (d) Berth Occupancy (e) ICC
14. What are the important performance indicators through which the performance of the port is measured?
15. Name important Stakeholders of the port industry? How they are important to enhance the overall performance of the port?
16. List and give the characteristics of the different Port Administration Models?
17. What are the various aspects influencing port tariff?

**SECTION C (4 x 10 = 40 Marks)**

*Question No. 18 is compulsory. Answer any three questions of the remaining 5 questions  
Answer should not exceeding 500 words; All questions carry equal mark*

18. What are the major factors constraining port development? Highlights the reality with contemporary examples

19. Bring to light the role of Port Authority, terminal operators and the Shipping Ministry in the landlord port concept?
20. (a) The usable storage area of a transit shed is  $3145 \text{ m}^2$ , if a cargo is stacked, on average, to a height of 3 m, what volume of cargo can the shed hold, assuming 'block stacking' ?
- (b) In an emergency, with some doors closed and aisle widths reduced to give a Usable Storage Area of  $4417 \text{ m}^2$ , and if cargo is stacked to a height of 4m, how much extra volume of cargo can be accommodated ?.
- (c) Calculate the Holding Capacity in tonnes from the 'usable storage volume' with the stowage factor of  $2.0 \text{ m}^3/\text{t}$  and the broken stowage allowance of 20%.
- (d) What are the main causes of broken stowage?
21. What are the significant planning principles while developing seaport facilities?
22. Highlight the impact of changing ship technology on Ports.
23. Decisive and timely action is needed to regain Seaports competitive advantage and secure the confidence of the Port users – Discuss.

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