

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

**INTERNATIONAL TRANSPORTATION SYSTEMS**  
**SEMESTER – I, SCHOOL OF MARITIME MANAGEMENT**  
**DEC/JAN 2013-14**  
**SUBJECT CODE: T 1104**

**Date: 19.12.2013**

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

**Section- A**

(10 x 1 = 10 marks]

**Answer ALL Questions. All Questions carry equal marks.**

1. Containers that are embedded with Cooling & Air- conditioned Systems are called:  
a) Containers Cool Range (CCR)    b) CRC    c) Reefers    d) Containers
2. If all locations in a network are almost reachable from any other location, it is called:  
a) Euclidian net work    b) Ubiquitous network.    c) Logistic Network    d) High Friction NW
3. Cartography involves:  
a) Maps with symbols    b) Logistic Park designs    c) 3PL    d) 4PL
4. Detouring is adopted to:  
a) Fill vessels    b) Fix intermodal problems    c) Fix multimodal problems.    d) Overcome barriers.
5. The Draft of a Seaport indicates:  
a) Its IT compliance    b) Its Revenue  
c) Its depth to accommodate ships    d) Net Revenue (after tax)
6. Foreland is in the opposite side of :  
a) Before Land    b) Hinterland    c) Yards.    d) Mirror
7. The laden and unladed weight difference of a vessel is called:  
a) Full load    b) DWT    c) FTL    d) LTL
8. If the NPV is negative then the Project has to be:  
a) Accepted    b) Further financed.    c) Fully accepted    d) Rejected.
9. When Private players join with the State for improving the Infrastructure, it is called:  
a) B2P    b) PPP    c) P2P    d) S2P
10. Highly contagious diseases are called:  
a) Occupational Disease    b) Schedule B disease.    c) Pandemics    d) Schedule A disease (WHO)

**SECTION- B**

[5 x 5 = 25 Marks]

**Answer ANY FIVE Questions. All Questions carry equal Marks.**

**Answer to theory questions should not exceed 200 words each.)**

11. Explain the concept, constituents and the steps of *Delphi Forecasting* as a non-quantitative forecasting technique.
12. Using Market Threshold and Range distances as parameters, bring out the concept of *Market Area Analysis* for Demand, Supply permutations.
13. Explain the concept and 2 methods of container repositioning.
14. List out and explain the transportation geography based Spatial Constraints that are basically, experienced in terrestrial space utilization
15. Using a flow diagram, explain the 'Strategic Fit' for an effective Global Supply Chain Management, indicating the SCM drivers and trade-offs.
16. What are the essential factors you will consider in expansion of Ports of a Country to adapt to the global demand?
17. Explain Transportation Safety and Security aspects, in global perspective.

**SECTION - C**

[4 x 10 = 40 Marks]

**Answer Question No.18 and any THREE of the remaining 5 questions.**

**All Questions carry equal marks.**

**(Answer to theory questions should not exceed 500 words each.)**

18. What is Terminal Governance in Global intermodal perspective ? Also, compare using a table, the various terminal based functions of Rail, Seaport and Airport Terminals, to bring out its differences & similarities.
19. Explain the components and application areas of GIS-T . Also explain the types of Commodity Chains and their Stages using a flow diagram.
20. **Write short Notes on the following:**
  - a) Cold Chain.
  - b) Hub & Spoke Model of Transport Network
  - c) Last Mile Concept
  - d) Future Transportation (Trends & Predictions)
21. i) Explain Notion of Accessibility & Network Data Model as the methods of Transport location  
ii) Explain, with examples the various levels of Freedom rights practiced in Global Air Transportation.

22. i) Explain how Linear Programming models can be applied for tackling constraints in transportation Management. (4)

ii) Calculate the *Gini Coefficient* and find out the *distribution pattern* for the following four coastal terminals whose cargo traffic handling details are given below: (justify your conclusion with steps and valid points) (6)

Terminal Name	Cargo traffic handling (in tonnes)
P	29,000
Q	13,000
R	8,000
S	7,000
Total	57,000

23. Read the following case and answer the posers :

Navabharat Heavy Engineers Limited (NHEL), Nagpur manufactures Tractors & other farm equipment and sells them mainly in rural India. The tractors manufactured by NHEL has utility in farming activities as well as rural transportation. NHEL has two production Units in Nagpur and one near Kolkata. Initially, the sale of tractors was concentrated in areas like Punjab, Haryana and Uttar Pradesh, but now the firm sells throughout India, especially down south.

Though the demand is more and more, it has put a strain on the distribution system & facilities available with the firm as almost all the FG of the firms are transported using Trucks, mostly operated by 3PL. The firm fears that it may soon, lose the market as well as the customer goodwill. Other players would enter and capture the market, possibly even eroding the existing market base of NHEL. The dealers pan India, need quick response, as very often Ro/Ro trucks are delayed, and the damage is heavy.

The CEO of the firm has called for a report from all Managers especially the Logistics Department /Manager.

Posers:

1. What is basically wrong with NHEL and in which domains it failed.
2. If you are the Logistics Manager of NHEL, what logistical suggestions you will offer to your CEO, for improving the delivery system of Tractors etc. Justify your answer with valid points.

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