



INDIAN MARITIME UNIVERSITY

SCHOOL OF MARITIME MANAGEMENT

**June 2013 Examinations
FIRST SEMESTER**

INTERNATIONAL TRANSPORTATION SYSTEMS

Subject Code: T 1104

Date: 12.06.2013

Time: 3 Hrs

QP Code: T0821104

Max. Marks: 75

Note:- Answer ALL Questions. All Questions carry equal marks

Section- A

(10 x 1 = 10)

1. A small water vessel usually non-motorized shuttled towards a big ship for loading etc is:
 - (a). A Liner
 - (b). A ULCC .
 - (c). A Barge.
 - (d). A Cruise.

2. The size of a 'Market' is the function of its:
 - (a). Length & Topography
 - (b). Range and Threshold
 - (c). Product and Polarity
 - (d). Site and Hydrology.

3. Product size & shape dimensions, affecting Transportation space utility, is called :
 - (a). Robust
 - (b). Stowability
 - (c). Vulnerability
 - (d). Sturdiness

4. Rasters are :
 - (a). Combo modes of Road and Water transportation.
 - (b). Combination of Air and Water transportation.
 - (c). Levy for trawlers (used in deep sea operations)
 - (d). Grid based representative GIS data model.

5. Pandemics are :
- (a). Gateways especially facing sea.
 - (b). Academic details of Global Transport
 - (c). Highly Contagious diseases
 - (d). CFS in EUs
6. Full Cabotage is also called as:
- (a). The Second freedom
 - (b). The Eleventh freedom.
 - (c). The Seventh freedom.
 - (d). Ninth Freedom.
7. CFS and ICDs facilitate International Transportation, widely involving:
- (a). Containers .
 - (b). Land bridges .
 - (c). MH equipment .
 - (d). Pricing systems .
8. The temperature controlled supply chain function in commodity distribution is called:
- (a). Hydrology.
 - (b). Commodity Chain
 - (c). Acoustic Transport surveys
 - (d). Cold Chain
9. Video Gun used in Traffic survey is an example for:
- (a). Traffic decongestion
 - (b). Intrusive method.
 - (c). Non-Intrusive method.
 - (d). ISO certified planning.
10. Detouring or Modal change is the ideal solution for :
- (a). Stuffing problems.
 - (b). Absolute Barriers.
 - (c). Tracking problems
 - (d). Containers tracing.

SECTION- B

(5 x 5 = 25)

Note: Answer ANY FIVE Questions.

All Questions carry equal marks.

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

- 11. Explain with valid points, how Containerization has vitally contributed to the Intermodalism and Global Transportation.
- 12. Explain with examples the types of Intrusive and Non-intrusive traffic counting methods used for traffic planning.
- 13. Describe the concept of Hinterlands & Forelands and their interface. Explain the role of Dry Ports in promoting Marine transportation.
- 14. List out the six major Drivers of the Supply Chain process and explain Transportation as the core function of Logistics.
- 15. List out and explain the essential factors considered in expansion of Airports and Seaports of a Country to adapt to the global demand?
- 16. Explain, with examples the concept of Transportation Safety and Security aspects, in global perspective.
- 17. List out and explain the transportation geography based Spatial Constraints that are basically, experienced in terrestrial space utilization.

SECTION - C

(4 x 10 = 40)

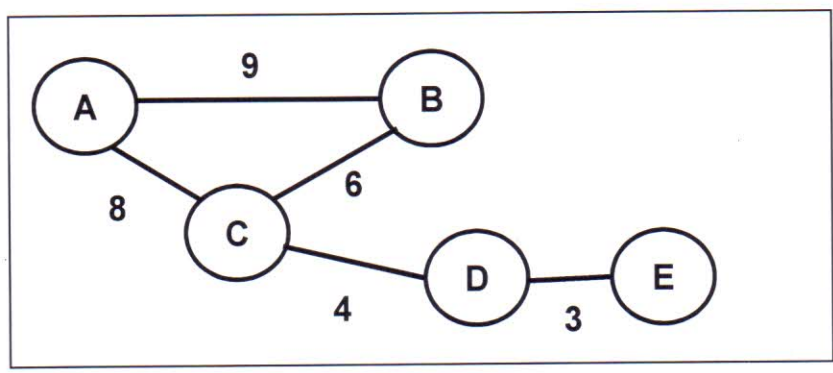
Note: Answer Question No.18 and any THREE out of the remaining 5 Questions.

All Questions carry equal marks.

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

- 18 (a). Explain with examples the Economic and Technical Performance indicators for evaluating Multimodal Transportation systems. (5 Marks)
- (b). Explain Notion of Accessibility and Network Data Model as Transport location methods. (5 Marks)
- 19. Write short notes on:
 - (a). GIS-T
 - (b). Last Mile Concept
 - (c). Elasticity using Demand & Cost factors (use a graph)
 - (d). Seaport Terminals (Location and functions).

20. (a). Explain the concept of Commodity Chain Analysis and list out the main sectors of Global Commodity Chains. (5 Marks)
- (b). Work out the Geographical Accessibility Matrix and identify the most accessible node among the A, B, C, D and E nodes (as per picture) whose distances from each other are indicated in Kilometers. Provide the result analysis for your conclusion. (5 Marks)



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21. Write short notes on:
- (a). Cold Chain in Logistics.
 - (b). Horizontal and Vertical Integration
 - (c). Major Global Canals with their significance
 - (d). Future Trends in Transportation.

22. (a). Explain the types and functions of Transcontinental Bridges. (4 marks)
- (b). Calculate the Gini Coefficient and find out the distribution pattern for the following 4 Seaport terminals, whose cargo handling details are given below: Terminal K (33000 Tons); L (25000 Tons) ; M (11000 Tons) and Terminal N (4000 Tons). Justify your answer with sequential solution steps & result analysis). (6 marks)

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23. **Case:**

Universal Auto Ancill Ltd, Chengalpattu (near Chennai) often referred as UAAL, established in 2006, is one of the leading manufacturers of automobile components such as Auto mobile Engine Pistons, valves, Lighting & Fuel systems etc. . From 2008 the Firm started their global distribution to cater to its global customers and now has 3 manufacturing units (Chennai, Tuticorin & Cochin) in India and 2 assemblage cum distribution Units in Overseas locations (Singapore & Dubai), which do possess good scope for production too.

Most of the Intra country goods transportation & logistics system of the firm are carried out by Roadways (62%) and in the global front it is mostly by Airways (73%). Global Transportation is becoming a burden for UAAL although the firm enjoys considerable free Ports and duty free movement of RM and PKDs for their Global Units /Plants and customers. UAAL widely engages 3PL players also in this front and most of the goods from Indian plants are lifted by Air for their quick transportation and distribution.

The CEO & BODs of UAAL feel that the Transportation costs (now at 47% of the total cost) are too high and some strategic planning needs to be done to peg it down. Now, the Firm has approached you with the above scenario. As a Consultant for Global Logistics & Transportation, carefully analyze the above case and provide solutions to the *following* posers.

Posers:

- (1). Identify the 'functional' areas of UAAL, for improving its Global Freight Transportation & Distribution Systems.
- (2). In Operational perspective, what are your specific suggestions for Overall Cost cutting and improving the firm's overall financial performances?

(Note: a few data may be assumed relevant for the scene but the same need to mentioned in your report)

(5+5 Marks)
