

Indian Maritime University
(A Central University, Govt of India)
MBA-International Transportation and Logistics Management
PG22T2401 (Semester IV)
Transport Economics and Optimisation
May/June 2018 End Semester Examinations

Time: 3 Hours

Max Marks:60

Date: 28.05.2018

Pass Marks:30

SECTION A

12 X 1=12 Marks

Answer all the questions

All the questions carry equal marks

1. Elasticity of supply is
 - a. % change in Quantity supplied \div % Change in freight rate
 - b. % change in Quantity
 - c. % change in fare
 - d. None of the above

2. Following one is not a determinant of Maritime connectivity
 - a. Logistics Cost
 - b. Trade Volumes
 - c. GDP per capita in exporting country
 - d. Port infrastructure

3. What type of policy required as a solution to traffic congestion caused by the long distance traffic.
 - a. Integrated traffic policy
 - b. Simple policy
 - c. Special corridor
 - d. Public policy

4. Revenue maximization is the objective of pricing policy of a transport operator, which can be done by
 - a. Extending the market size
 - b. Increasing the market share
 - c. Extending the market size & Increasing the market share
 - d. Attracting customers

5. The load factor has an effect on _____
 - a. Cost only
 - b. Cost per passenger

- c. Demand
 - d. Distribution
6. A pricing policy whereby a firm distinguishes between different groups of customers is called
- a. Price discrimination
 - b. Economic distribution
 - c. Elasticity
 - d. Monopoly control
7. In Air mode the following one is not the load and Revenue related costs
- a. Passenger and Security costs
 - b. Insurance of passenger and cargo
 - c. Running Cost
 - d. Catering cost on the Aircraft
8. The load factor which required to equate traffic revenue with operating costs, excluding interest on capital is called
- a. Marginal load factor
 - b. Break-even load factor
 - c. Operating load factor
 - d. Aircraft factor
9. What is the order quantity of inventory that minimizes the total cost of inventory management?
- a. Maximum level
 - b. Minimum reorder level
 - c. Economic order quantity
 - d. Re-order level
10. When the number of bins is restricted to 1 and each item is characterised by both a volume and a value, the problem of maximising the value of items that can fit in the bin is known as the _____
- a. Knapsack problem
 - b. Bin packing problem
 - c. Replacement problem
 - d. Maximizing value

11. What is a mathematical technique used in computer modelling to find the best possible solution in allocating limited resources to achieve maximum profit or minimum cost called?

- a. Differentiation
- b. Computer Management
- c. Linear programming
- d. Profit modeling

12. In logistics when combination of shipments from multiple vendors in close geographic proximity into one shipment received by the customer, normally done for a defined route on a recurring basis is called.

- a. Bin run distribution
- b. Milk Run Distribution
- c. 3PL Logistics
- d. Multiple vendor distribution

SECTION B

5 X 4 = 20 Marks

Answer any 5 out of 7 questions

Each answer should not exceed 200 words

13. X & Co runs a mail order business for gym equipment Quarterly demand for the Flexers is 4000 units. The annual holding cost per unit is Rs 2.50 and cost to place an order is Rs 50. Calculate EOQ.

14. Explain in detail the measurement of price elasticity.

15. Explain operational factors affecting costs in air mode transport?

16. Write short notes on Fleet Standardization.

17. "Equipment Replacement analysis is carried out when there is a need to replace or augment the currently owned equipment"- Discuss.

18. Explain the significance of travelling salesman problem

19. "The Centre of Gravity Method is an approach that seeks to compute geographic coordinates for a potential single new facility that will minimize costs"-Comment

SECTION C

4 X 7 = 28 Marks

Question No. 20 is compulsory
Answer any 3 out of 5 remaining questions
Each answer should not exceed 500 Words

20. Given:

Store Location	X-coordinate	Y-Cordinate	Qty of products sold (kgs)
A	125	100	1250
B	250	75	3000
C	450	300	2750
D	200	350	1500

East Bakers currently has four retail locations within city. Currently each retail outlet makes all of its own breads and pastries from scratch. In order to reduce cost and ensure consistency of the firms products across all location, the management has decided to build a central commissary, where the product will be prepared and subsequently distributed to the 4 retail stores. The question now where to locate the commissary. Using Centre of Gravity method.

21. Solve by using North west corner cell method:

Source	A	B	C	D	Supply
I	3	1	7	4	300
II	2	6	5	9	400
II	8	3	3	2	500
Demand	250	350	400	200	

22. Explain the factors Determining the Magnitude of Elasticity of supply

23. Discuss briefly about optimization of milk run routes.

24. "Privatization of SLR in railways is beneficial"-Discuss

25. "In a freely competitive transport market, the allocation of resources and the provision of services would be determined on the basis that operators produced at the lowest possible cost the service required by customers".- Comment
