

**Indian Maritime University
(A Central University, Govt of India)**

End Semester Examinations-December 2022

Programme Name: MBA (PSM)

Semester: III Semester

Subject Code: PG21T2305

SUBJECT: SHIPPING ECONOMICS

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Date: 23.12.2022

Max Marks : 60

Duration : 3 Hrs

Pass Marks: 30
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Section A – All questions are to be attempted .

Marks 10

1) The inefficiency of the Steamship Engine was resolved by

A) Triple Expansion

B) Diesel Engine

C) Building Bigger ships

D) Nuclear Engine

2) During the Peak stage of Shipping cycle the risk is on the

A) Shipowner

B) Cargoowner

C) Ship Builder

D) Ship Builder

3) Which market is not part of the Freight Market?

A) Freight Derivative market

B) Time charter

C) Sale and Purchase Market

D) Voyage Charter

4) Costs incurred on Crew members of Ships are

- A) Capital cost
- B) Voyage Cost
- C) Operating cost
- D) Fixed Cost

5) Which finance is available only to Shipping Business?

- A) Corporate Finance
- B) Charter backed Finance
- C) Private Equity Finance
- D) Public Equity Finance

6) The figure that provides an indication of how many tons of cargo, fuel, fresh water, ballast water and stores a ship can carry is its ...

- A) GRT
- B) MRT
- C) NRT
- D) DWT

7) The maritime convergence zone between the Mediterranean Sea and the North Atlantic Ocean is called the.....

- A) Turkish Straits.
- B) Straits of Malacca.
- C) Straits of Gibraltar.
- D) Straits of Magellan

8) Sea transport demand is measured in terms of

- A) Ton Miles
- B) Tons
- C) Cubic Metre
- D) NRT

- 9) The measure used to refer the freight earnings on Bare Boat charter is
- A) Hire per day in USD for the period of charter
 - B) Hire per month in USD for the period of charter
 - C) Hire per GRT in USD
 - D) Hire per Volume of Traffic for the voyage
- 10) Buying ships cheaply and selling it for higher prices is called
- A) Revenue Play
 - B) Equity Play
 - C) Asset Play
 - D) Liability Play

Section B- All questions are to be attempted

5 questions of 02 Marks each

- 11) What are the Four aspects related to Product offered by the shipping companies (product differentiation) ?
- 12) Compare the characteristics of Peak and Trough in the shipping market cycle?
- 13) What are the key influences on demand and supply of ships ?
- 14) Write the formula to calculate the unit cost in relation to economies of scale ?
- 15) Define 'the ship owner and 'the shipping company'?

Section C – Seven questions of 08 Marks each of which any 5 questions to be answered.

- 16) Explain the objectives and procedure for the operation of shipping pools. Calculate the Distribution key and share the net earnings among the 3 members of the shipping pool from the following details?
3+5 marks

All members brought similar ships with different tonnage. Shipowner A - 5 ships, Shipowner B - 4 ships and Shipowner C - 4 ships.

Shipowner A - 3 ships @ 50,000 DWT, 2 ships @ 40,000 DWT

Shipowner B- 2 ships @ 50,000 DWT, 2 ships @ 60,000 DWT

Ship-owner C – 4 ships @ 50,000 DWT. All ships of ship-owner C are modern and he gets 5% extra from the net earnings.

Total annual freight revenue –USD 3,000,000

Pool overheads - USD 500,000

Voyage and Cargo handling expenses – USD 7, 50,000

17) Describe a typical market cycle with its characteristics? Compare the general trend and pattern of the sailing ship era cycles, tramp ship era cycles and bulk ship era cycles? 4+4 Marks

18) Define the Equilibrium price in the freight rate movements? Explain with examples the three types of Equilibrium in the shipping cycles? 3+5 Marks

19) Differentiate the financial and operational implications of voyage charter, time charter and bare boat charter? Describe the purpose and procedure of Forward Freight Agreement? 4+4 Marks

20) Brief the cost groups in running the ships ? Describe the cost elements briefly in each such group? 3+5 Marks

21) Differentiate the cash flow and Income statement of a shipping company? Compute the Voyage cash flow statement from the following information and conclude the time charter equivalent per day? 3+5 Marks

Ship information: 75,000 DWT Bulk Carrier

	Design speed	Sea margin	Bunker (IFO) Main Engine	Diesel Oil Auxiliary	Voyage speed
Load voyages	15 knots	5%	33 tons per day	1 ton per day	14.25 knots
Ballast voyages	15 knots	5%	31 tons per day	1 ton per day	14.25 knots
Operating cost	\$5620 per day		At 350 days on hire per annum		

Bunker Price Main Engine \$ 338/ ton and Diesel oil \$ 531 per ton

Brokers commission 1.5% of freight revenue

Voyage information:

Leg	From-To	Distance (miles)	Days at sea	Days in port	Cargo tonnage	Freight/ton
1	US Gulf-Japan	9123	26.7	5	54000 ton	\$56/ton
2	Japan-Australia	4740	13.9	0(Ballast)	Ballast	Ballast
3	Australia- Europe	12726	37.2	10	70,000 ton	39.0/ton
4	Europe- USEC	4500	13.2	0	Ballast	Ballast

Port congestion provision			10	
Total loaded voyages	21849	63.9		124,000
Total ballast voyages	9240	27.1		
Total Round Voyage	31089	91.0	25	124,000\$ 5,754,000
Port costs – 4 ports \$ 418,000				
Canal Dues - \$ 80,000				

Total Number of days for the voyage – 116 days

22) What are the different types of finance available for ships and shipping companies? Narrate the procedure for arranging a mortgage backed loan for purchasing a ship by a ship owner? 3+5 Marks

AMUKOS