

**NAROTTAM MORARJEE INSTITUTE OF SHIPPING
MUMBAI**

Examination Paper – March 2024

Fellowship / Advance Diploma in Shipping Management & Logistics – Final year

LINER TRADE & MULTIMODAL TRANSPORT

11.03.2024

Total 80 Marks

Time: 3 Hours.

Note : Answer any FOUR Questions. All Questions carry equal marks.

1. Explain in detail the principle of HUB & SPOKE Arrangement in LINER TRADE.

Give an example of Major HUB with its spoke with a diagram.

(20 Marks)

2. Explain the following players in the LINER TRADE

a) FREIGHT FORWARDER

b) CUSTOM BROKER (CHA)

c) FREIGHT BROKER

d) CARRIER

(5 Marks each)

3. Explain the key differences between a VSA [Vessel Sharing Agreement] and an SCA [Slot Charter Agreement]. Using examples highlight the advantages and disadvantages of a VSA and SCA .

(20 Marks)

4. Use a trade of your choice to explain the container imbalance between the dominant leg / non-dominant leg and the challenges this presents. Describe how carriers can minimise the effects of the imbalance.

(20 Marks)

5. Explain in detail the features of LINER SHIPPING. List the 3 broad categories of LINER SHIPPING.

(20 Marks)

6. Explain the following Charges of LINER TARIFF in detail.

a) Storage charges

b) Detention charges

c) Demurrage Charges

d) Peak Season surcharge

(5 Marks each)

7. Liner Agency is multi-tasking organization. Explain in detail.

(20 Marks)

Q	1	2	3	4	5	6	7	8	9	10	11	12	Total
M	18	16			18	17							69

WRITE BELOW

ANS NO. 6

(A) STORAGE CHARGES:-

When a customer keeps a shipping line container & equipment inside the container terminal beyond the agreed free time, the terminal imposes a charge in the form of penalty imposed on the shipping line for using its space longer than required.

(4)

The shipping company / line in turn collects this charge from the customer which is known as storage charge.

This charge is applicable from the expiry of agreed free time till container is outside the terminal.

(B) DETENTION CHARGES:-

When a customer keeps a shipping line equipment & container outside the container terminal beyond the agreed free time, the shipping line applies detention charges on the customer for holding it beyond the agreed time.

This charge is applicable from the expiry of agreed free time till container is back in

⑤ the custody of shipping line.

(C) DEMURAGE CHARGES:-

When a customer keeps a shipping line container & or equipment inside the container terminal beyond the agreed free time usage, the shipping line charges demurrage charges on the customer for holding the equipments beyond agreed time limit.

This is applicable from the time of expiry of agreed time till the equipment is outside the terminal.

D) PEAK SEASON SURCHARGES:-

Peak season surcharges are charged on the base tariff during the peak season when there is huge demand in the port. These are mainly applicable in Far East, Europe & US ports during peak season.

During the peak season, the port may be congested with a lot of traffic which will eventually affect the turn around time & schedule of the shipping line due to more delays. These might be waiting time for berths, shortage of manpower & equipment in the port & inadequate handling facilities due to peak season.

As we know that the surcharges are

levied due to temporary fluctuations in the contributing factor for the tariff.

So, peak season surcharge is applicable during periods of peak season only which depends upon the demand & supply forces of the economy.

ANS NO. 1

HUB & SPOKE ARRANGEMENT IN LINER TRADE:-

The hub & spoke arrangement in liner shipping has been adopted from aviation industry where Delta Airlines & Fedex pioneered in this concept.

This system can be well understood by the concept of bicycle hubs & spokes.

The shipping line will employ mother & feeder vels for this kind of liner trading.

The main line vessels will call ports at the major hub ports & the feeder vel will trade along the spokes of the hub.

The feeder vel will serve the regional smaller ports & they will tranship cargo from spoke - hub & vice versa.

Where there is a big liner trade, there might be some intermediate hubs also.

This hub & spoke principle has resulted in a revolutionary change in the liner trade.

It has offered many advantages to the liner shipping. However there are some

disadvantages as well.

ADVANTAGES:-

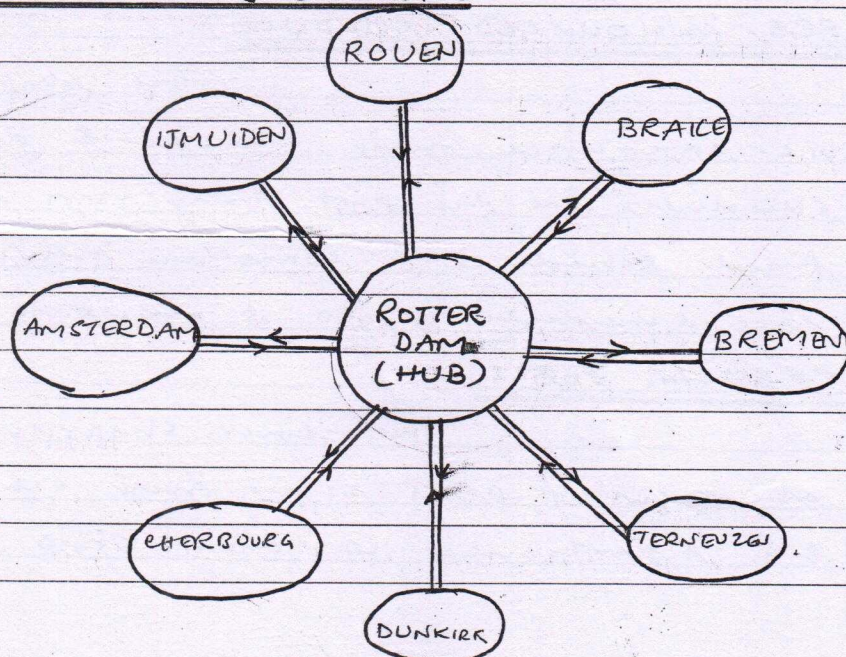
- 1) It offers economies of scale. Large vsl calls at hub ports which are major ports with better infrastructure.
- 2) The cost of transportation per unit is reduced.
- 3) It reduces the long haulage by road network which is not required due to regional transshipment by feeder ships. Congestion on the roads is reduced resulting in better traffic movement & condition of roads.
- 4) It improves efficiency of overall transportation & reduces the burden on the other mode of transport.
- 5) Long distance travelling is avoided & cargo may be discharged at hub for further connecting to regional ports.
- 6) Hub & spoke system allows the cargo to be delivered where main line vsls are unable to call due to infrastructure facilities & developments.
- 7) If cargo is less than container load (LCL), same can be consolidated at hub & transported to the port along the spoke.
- 8) This concept allows the customisation of container & cargo at transshipment hub.
- 9) Even if the main line vsl doesn't have full cargo, same can be transhipped by feeder vsl which can be re-stuffed or consolidated at hub.

- 10) The hub & spoke system acts as a distribution system for the goods.
- 11) Users have better options for transport.
- 12) It reduces the overall adverse impact on the environment as shipping has lower CO₂ emission than road / rail movement.

DISADVANTAGES :-

- 1) Cargo travelling time is increased as shipping is the slowest means of transport.
- 2) The delay in mother ship schedule can affect the schedule for feeder ship.
- 3) Not competitive enough with rail transport in developed countries.
- 4) Shipping critics does not like this concept.
- 5) Extra labour cost & other charges due to transshipment.
- 6) Transshipment & double handling charges for the equipment & container.
- 7) The infrastructural cost for the development of port facilities, equipments at hub ports is high.

EXAMPLE OF HUB & SPOKE.



18 In the example given Rotterdam port in The Netherlands is a hub port & all the other ports are part of this hub & spoke system connected with the hub Rotterdam.

ANSWER NO. 5

FEATURES OF LINER SHIPPING:-

Liner shipping is a kind of shipping where the ships are sailing at a regular interval with pre-announced schedule.

It covers Roll-on Roll-off, container ships & Passenger ships.

The features are as mentioned below.

1) SPECIALIZED SHIP:-

The ships in the liner shipping are specialized ships to carry that particular cargo. For example:- container ships for container carriage, PCC & RO-RO for car, trucks carriage etc.

2) PRE-ANNOUNCED SCHEDULE:-

The ships normally pre-announce their arrival & departure schedules for the port. They run at a fixed schedule & sometime have very long schedule upto 6 months.

3) REGULAR PORTS:-

The liner shipping calls at regular ports as per their schedule. E.g. A particular container ship calling

following ports along its route.

MUMBAI - MUNDRA - JEBEL ALI - MOMBASA - TANZANIA.

4) FIXED ROUTE :-

As mentioned above, they follow a fixed route.

5) SOPHISTICATED CARGO HANDLING EQUIPMENT

The cargo handling equipment is dedicated for usage in container handling & it can not be used for any cargoes like - Reach stacker, Straddle carrier, Rail mounted Gantry, Rubber tyre gantry, Quay side container gantry.

6) FASTER TURNAROUND IN THE PORT :-

Due to sophisticated cargo handling equipment & specialized ships, the cargo operations are really fast which results in faster turnaround in the port.

Sometimes port stay can be as less as 3-4 hrs in modern ports in far east like HongKong, Shanghai, Ningbo.

7) DOOR-TO DOOR DELIVERY :-

With the uniform & standard cargo transport unit, i.e. containers, door to door delivery is possible using multi modes of transport. This is known as multimodal transport.

8) DELIVERING A WIDE VARIETY OF GOODS :-

Container ships are capable of delivering various kind of commodities from raw material, unfinished goods to finished goods &

expensive jewellery, apparels, medicines, foodstuff & frozen, perishable temp sensitive commodities.

9) POWERFUL PROPELLING MACHINERY :-

Liner

shipping operates the ships at a speed of 18-24 kts which requires powerful main engine for propulsion. The engine is as powerful as 2-3 times of the engine on similar size of bulk carrier.

10) HIGH OPERATING COST :-

Due to fast speed & the main engine & A/E bunker consumption is high which overall results in high direct operating cost.

11) FIXED BERTHING WINDOW :-

Due to regular route & fixed schedule, fixed berthing window is allowed to liner shipping.

12) ALLIANCES ARE COMMON IN LINER SHIPPING :-

To reduce the high operating cost & increase the transportation efficiency, alliances are very common in liner shipping. There can be acquisition, merger, Joint ventures, shipping pools etc.

13) EASIER & ADVANCED DOCUMENTATION :-

To facilitate

faster movement of goods, documentation is simpler. Unlike tramp shipping where BL is common, in liner shipping Seaway Bill is extensively used. Even there can be issued online in electronic format.



WRITE BELOW

CATEGORIES OF LINER SHIPPING :-

These are as mentioned below :-

1) END TO END SERVICE :-

The vessel calls at one side of the ports & then other side of ports in other regions. So, vessel might be loading at multiple ports on the starting side & discharging on the other side.

E.g. Far East → United States West coast

2) ROUND THE WORLD SERVICE :- The ship never calls

the ports along its route again till it has circumnavigated the earth. This type of service is limited by ship size i.e. Panamax & now the Neo-Panamax after opening of the new Panama canal as the ships have to transit Panama canal in order to circumnavigate the earth. E.g. Transatlantic → Panama canal → Transpacific → Far East → Europe.

3) PENDULUM SERVICE :- This kind of liner shipping

combines 2 or more routes & vessel calls on the East & West of the centre port like Pendulum. This service eliminates the issues with the round the world service & mainly bigger vessels like Neo-Panamax, VLCS are employed in it. E.g. Europe → Middle East → Far East.

ANS NO. 2

A) FREIGHT FORWARDER :-

Freight forwarder is an individual or organisation who works on behalf of an exporter / importer or any other person for the safe, efficient & timely transportation of goods.

Depending upon the size of operations, it can be few persons or a limited company. It can work at regional level as well as international level.

The freight forwarder contracts for the carriage of goods with the shipper & issues house bill of lading.

The functions are as following.

- 1) Investigating & planning the best transport medium & route taking into account the nature, size, properties of cargo.
- 2) Concluding contract & issuing house Bill of lading.
- 3) Negotiating freight & collecting it.
Arranging packaging & labelling as required by local, regional & international rules & regulations.
- 4) Providing IT solutions & use of EDI
- 5) Assisting clients in solution of disputes.
- 6) To coordinate with customs & other authorities for the release & uninterrupted movement of goods.
- 7) To arrange insurance where required.
To arrange special services for high valued

cargo, DG cargo, Reefer & perishable products.

- 8) To provide tracking of the consignment of the goods.
- 9) To arrange transshipment of the goods if required.
- 10) To advise consignor about any precaution required with transportation with reference to special commodity like ODC, OOG, IMDG cargo, Reefer, live animals etc.
- 11) To arrange necessary documentation like House BL, custom & insurance papers.

ANS NO. 2 (B)

CUSTOM BROKER :-

A custom broker is a broker on behalf of importer to carry out custom formalities for timely release of the imported goods.

These brokers have to deal with a lot of custom paperwork which is very complex, tedious, confusing & lengthy.

In India, a custom broker has to be approved from Indian customs. In US, to become a custom broker, a license is required from US Department of customs.

Custom regulations are very complicated & lengthy. There may be 500 pages of regulations which are required for the import clearance of the goods.

A custom broker knows exactly which

rule / regulation is relevant for the import clearance of the commodity in question.

The custom brokers are highly professional & they keep themselves abreast with the latest modification, revisions & amendments in the custom rules & regulations.

Due to complex & tiring custom paper work & documentation, the services of a custom broker sometimes appears indispensable.

With their professional knowledge in the custom rules & regulations related to shipping, imported goods can be timely released & transportation efficiency is improved.

Normally, the services of a custom broker are required for import purpose but use of a custom broker in export is also not very uncommon. They charge a nominal fee for this operation.

ANS NO. 2(C)

FREIGHT BROKER:-

The job of a freight broker is to link the shipper with the carrier so that transportation of goods can take place.

These are professional bodies who has knowledge about the liner trade.

They look for the shippers who are looking for suitable carriers for transportation of their goods at an efficient, competitive rate & safety.

Depending upon the scope of operation, the freight broker may be few individuals or a limited organisational.

WRITE BELOW

ly

Q

The freight broker may be working at a regional level or at an international level depending upon the size of organisation.

The freight broker charges a fee as a commission from the freight for their remuneration.

ANS NO. 2 (D)

CARRIER :-

In liner shipping carrier can be two types

- Shipping companies who own the vessel
- NVOCC - Non-vessel owning / operating common carrier.

The shipping companies may own ships or they may be chartering the ships by time chartering or demise chartering.

These companies can be from owning a few ships to a fleet of hundreds of ships like NYK, MOL etc.

In order to meet the cargo transportation demand, more ships may be chartered or acquired.

Second type of carrier NVOCC are the companies who do not own any ships

but own containers

They acts as an intermediary in liner trade. They act as carrier for the shipper & shipper for the carrier.

(A) So, we can say that they are virtual carriers. Most of the NVOCC are registered as MTO & they agree to carry the cargo under a single contract from end to end using two or more modes of transport.