

**NAROTTAM MORARJEE INSTITUTE OF SHIPPING
MUMBAI**

Examination Paper – March 2019

Fellowship/Post Graduate Diploma In Shipping management –Final year

Part – I Shipping Economics

Date: 08.03.2019

Total 50 Marks

Time: 1.5 Hours

Answer to questions Part I and Part II should be written in separate Answer books.

Answer any four questions. All questions carry 12 ½ marks each.

Q1) Under a time charter contract, how are below mentioned costs apportioned between charterers and ship-owners, enumerate with reasons:

1. Port Dues.
2. Supply of Lubricants.
3. Supplementary P&I call.
4. War Risk Insurance Premium.
5. Additional War Risk Premium.
6. Pilotage Cost.
7. Annual Class survey of ISM system.
8. Bunker Survey.
9. Manning Costs.
10. Agency fees.
11. New Gyro System for the vessel.
12. Freshwater consumed for cleaning of cargo holds.
13. Store items viz. navigational charts, additives, etc.

Q2) Identify and explain the factors that influence a layup decision. Also enlist the steps that are to be taken to re-activate a laid-up ship.

Q3) Discuss the salient features and clauses of Norwegian Saleform in respect of sale and purchase of ships.

Q4) Write short notes on following –

- a) Ship-breaking industry in India.
- b) Investment appraisal in shipping.

Q5) "In the era of globalized trade linkage between economy, trade and shipping transport is getting more prominent" - Elucidate with examples.

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SUBJECT: SE

Q	1	2	3	4	5	6	7	8	9	10	11	12	Total
M	8	9		8	7								32

WRITE BELOW

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Freight earned from the shipment of goods earns revenue for the shipowner. Freight rates depend on the condition of the market and thus vary with supply and demand in the market. Freight revenues are the shipowner's earning prospects. These supply and demands cause huge variation in freight rates.

In movement of a vessel the shipowner is exposed to indirect and direct operational costs. These costs include capital investment hull and machinery insurance mortgages and loan repayment, ~~as indirect costs~~ direct employment of crews, certification and surveys maintenance and repairs, supplies and stores fresh water and lube oils. These costs are quite constant and do not vary.

Hence if the freight rates fall and the shipowner is able to cover the operating costs he will pay for the indirect costs of and keep the vessel sailing. However if a stage is reached where he cannot cover the standing costs he has to weigh in his mind the options with regard to his vessel. which could be to continue operation

scrap the vessel sell the vessel or lay up the vessel.

1. A vessel is said to be put into lay up when the operational costs cannot be covered. The factors affecting this is the condition of the international market. The market follows cycles and when the market is in a crisis or a trough vessels may be laid up.

Local and Regional problems. These contribute to situations where certain cargoes would not be able to be transported due to certain local issues such as strikes, riots labour problems etc. As a result of which certain trade would be brought to a stand still and vessels would be laid up. Global trade conditions. Certain trades due to the dynamics and the supply and demand trends of the population may not be serviced as a result those vessels designed to carry these special cargoes will need to be laid up.

World fleet and its allocation in new building and second hand ships is another reasons which may result in a decision to lay up a vessel. As the tonnage increases there is more ship building and vessels entering the market which results in freight rate drops and this results in inability to operate these vessel and an option is the lay up a ship.

It could also occur where the shipowner is unable to cover the operating costs.

in his evaluation if a vessel should be sold in the sale and purchase market and definitely not so in the scrap market. This also influences his reason to lay up a vessel. When a vessel is laid up an important requirement is to find a safe and secure anchorage that is cost conducive to the endeavour if not free of cost.

Costs will have to be incurred in mothballing procedures of the vessel, repatriation of the crew and movement of the vessel to the lay up position selected. Sufficient expenditure is to be incurred on minimum crew, safety, security, provision stores, supplies and operational needs of the vessel at the lay up.

When a vessel is reactivated after a lay up, costs have to be borne for putting crew on the vessel.

Considerable much needed maintenance, repairs checks and totals on the various machinery. Surveys and certifications will have to be carried out.

Restocking of the vessel into operational service by supplying of stores, spares, provisions and equipment needs to be performed.

Costs have to be incurred to comply with environmental aspects that arise removal of sludge, garbage, sewage.

Underwater surveys need to be carried out to ensure the hull coatings in order to ensure vessel performance which can result in

speeds.

9. Vastly costs have to be incurred for moving the vessel from the lay up to the first port of loading which can include bunkers, dock, port and canal and other voyage costs prior to commencement of the contract of the loading part.

4 a Ship breaking industry.

A major industry in India is the demolition industry. With Alang being the leading area for ship breaking yards and competing with Pakistan, Bangladesh and to a lesser extent China and Vietnam. The ship breaking industry is however in a rudimentary stage and lags safety norms. There exists a large work force that is not particularly trained that perform the ship breaking work in the traditional manner using gas oxy-acetylene and torch methods. They are exposed to fires, explosions, harmful vapours, injury and death. The large number of yards compete with each other for work at cut-throat rates. Government intervention and entrepreneurship has brought certain changes and relief to the archaic ship breaking industry. This has been in the form of controls over the industry, the allocation of yards which has increased in number, granting of subsidies and much needed investment to modernise the industry.

conditions. The industry also lacks modern equipment and technology such as laser cutting techniques which reduce the time and effort in ship breaking and increase the productivity of the number of vessels and tonnage broken up. The other need is to ensure the safety of the environment due to spillages of oil and pollutants from cargo holds and bunker tanks which damage the associated seas and coastal zones. This has been solved by investment from Japan with development of dry dock type yards where tankers and other such vessels can be broken up safely. Safety has to be also considered in breaking of vessels such as old vessels with asbestos components.

In spite of these safety, security and rudimentary style of ship breaking the Indian ship breaking market is the largest in the world due to the enormous and cheap work force. The breaking industry contributes to the steel industry and satisfies a part of the country's requirement for rolled steel which is recoverable from the scrapped metal obtained from the process; the requirement of the metal industry being another driving force for the ship breaking industry in India.

4 b. Investment Appraisal is a company's firm decision to invest its excess funds in an extensive way over a long term with the view of flow of expected returns over a series of years. It is used as a measure of viability of a project or the ~~project~~ ^{investment} feasibility which includes market technical and financial feasibility. Investment appraisals deals with the financial feasibility. The appraisal is made by calculating the cash inflows and cash outflows. These result in the formation of a cash account statement for various projects. To each of these is applied an investment appraisal method in order to find a project's viability. The Investment appraisal will lead to

The acceptance or non-acceptance of a project.

The projects will be given a ranking as per their desirability.

The appraisal states that an earlier recovery inflows are more acceptable than inflows at a later date.

Investment appraisals are of the traditional criteria or

1. Payback period
 2. Accounting Rate of Return
- Discounted Cash flow criteria
Present Net Value
Internal Rate of Return

Payback period. Is the number of years

calculated by dividing the ~~the~~ initial cash outlay by the yearly inflow.

Acceptability: If the payback period is less than the minimum expected by the management it is accepted.

Evaluation: It is easy to calculate simple to use. It does not take into account cash inflows after the payback period.

It does not take into account magnitude and the timing of the inflows.

The maximum acceptable payback is debatable.

Accounting Rate of Return is found from accounting information in financial statements calculated by dividing the average inflows after taxes by average book value.

Acceptability: The higher the return is higher than the expected by the management it is accepted.

Evaluation: It takes into consideration the entire stream of inflows.

It takes into account the time value of money.

It is simple to understand and use.

Present Net Value states that inflows at different periods are not of the same value unless compared to an equitable present value. A discounted rate is chosen and inflows and outflows are calculated and outflows are subtracted from inflows. If the ~~acceptance~~ inflows are positive or equal to outflow it is accepted.

Evaluation: It takes into consideration time value of money. It uses all the cash flows in the period.

Internal Rate of Return

NPV is equal to zero. This is said to be found when the cash inflows are equal to the cash outflows. This is done by lowering the discounted rate till if the inflows are lower than the outflows or vice versa, till they are equitable.

Acceptance If the IRR is higher than that expected by the management it is accepted.

Evaluation. It considers the ^{value of} time flow.

It uses the entire cash flow of the project. It doesn't require the cost of ~~and~~ capital or rate of return as a ~~pre~~ requisite for calculation.

WRITE BELOW

5

Trade and global economy is interlinked. Openness in trade brings in large amounts of Investment. This results not only in level of investment but also the efficacy of investment. It also allows a player in a country to access products which were not available but which would be available at higher costs.

Openness of trade also results in increased productivity, due to the exposure and input through new research, science and technology developments in the market.

Open trade rules adopted by the government liberalises trade and opens investment into the country by offering higher returns on capital, lower interest rates and lesser inflation. All these lead to investments due to trade openness and vice versa if there were

restrictions this leads to a surge in the global economy. Trade and the global economy are linked by shipping which is the service provider between the two however trade being the existence of shipping as the demand and supply of trade drives shipping.

by an increase in freight rates which requires more shipping tonnage and results in that building a new ship and so on.

of over tonnage which results in a drop in freight rates.

The South East Asian Crisis is a good example of this linkage between economy trade and shipping. There was a large amount of investment in South East Asia in the 1970 which realised into higher incomes, higher GDP, less inflation and demand which was satiated by shipping. However a structural collapse due to mismanagement of current accounts, high inflated exchange rates, liability and asset mismatch, lack of government control and resultant fall in exports caused an economic collapse.

Later when the markets improved due to exchange rate competitiveness, exports resumed due to more investments and again facilitated trade and economic growth carried by shipping.

Containerisation and establishment of port holdings, specialised equipment for handling and development of inland transport are another example of the linkage.

This is especial seen with the large movement of finished goods from the heavy sector via ship to satisfy the needs of global economics. This and spoke method of service is an example of increasing frequency, level of quality of service and competitive rates to meet the global supply and demand.

Q1?

- 1 Under Time Charter Hire,
 - 1 Port dues. Payable by the charter as charter has taken the vessel on hire for a period.
Voyage Cost.
 - 2 Supply of lubricants Payable by the ship owner as it is required for the daily running and maintenance of the vessel
 2. Supplement any P&I Call Payable by the ship owner as P&I Clubs are owners clubs and deal with their needs
 - 4 War Risk Insurance Premium Payable by the shipowner as it covers vessel risk in war zones
 - 5 Additional War Risk Premium Payable by the charter to cover cover additional protection over and above those acquired by the owner
 - 6 Pilvage Costs Payable by the charter as it is part of the voyage costs payable by the charter during the hire period.
 - 7 Annual Class survey of ISM system Payable by the shipowner as it is a mandatory survey certificate requirement for operation of the vessel.
 - 8 Bunker Survey To be decided as per the

at cost and time of charterer off Hire
 Broker's survey to be at cost and time
 of owner.

9 Manning Costs. Payable by the shipowner
 as in a time charter hire master and
 officers and crew are appointed by owner
 but work on behalf of the charterer

10 Agency fees Payable by the shipowner
 as agents are always servants of the
 shipowner though they can be nominated
 by the charterer

8 11 Fresh water consumed for cleaning of cargo
 holds is payable by the charterer as
 employment of the vessel is on charterer's
 cost and hold cleaning is a requisite
 for vessel readiness to load a cargo.

12 Store Items viz navigational charts additives etc
 payable by the shipowner as they are
 imperative for the safety of navigation
 of a vessel and a due diligence for
 performance of the voyage.