

NAROTTAM MORARJEE INSTITUTE OF SHIPPING

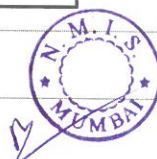
MUMBAI

Main + 3 No. of Supplement = 4

Examination :- PGDSM - FIRST YR./ FINAL YR./ ASSOCIATESHIP / FELLOWSHIP

Month MARCH Year 20 25 TOTAL MARKS

Subject Chartering



Q	1	2	3	4	5	6	7	8	9	10	11	12	Total
M	13	10		16		15	15						69

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Q-6. • Voyage :

Colombo (Free) - Jebeldhana (Load) - Colombo (Discharge)

Cargo quantity :-

Min. 80,000 mts +/- 5% Moloo

= 80,000 + 4,000

= 84,000 mts.

• WS 100 = US \$ 9.27 pmt

It is stated in the question VRD of 0.12 to be deducted for voyages involving COLOMBO.

∴ WS 100 = US \$ 9.15

WS 148 = $\frac{9.15}{100} \times 148$

WS 148 = \$ 13.542

• Voyage days calculation :-

Round distance = 4220 Nm

One-way distance = 2110 Nm

Speed = 13 Knots.

Voyage days :-

At Sea (Laden)	At Sea (Ballast)	Loading	Discharging	Waiting
6.76	6.76	2	2	0

Total voyage days = 17.52 days

• Bunker consumption :-

	Laden	Ballast	Loadport	Disport	Total
VLsfo (mts)	304.2	297.44	20	60	681.64
MGO (mts)	0.676	0.676	0.2	0.2	1.752

Total VLsfo consumption = 681.64 mts

Total MGO consumption = 1.752 mts

• Calculation for direct operating cost :

Bunker rates : VLsfo - USD 590 pmt
MGO - USD 750 pmt

Total Bunker charges incurred :

VLsfo : $681.64 \times 590 = 402,167.6$

MGO : $1.752 \times 750 = 1314$

Total Bunker cost = 403,481.6 USD

Port charges : Jebeldhana - USD 75,000

Colombo - USD 50,000

Total post charges = USD 175,000

$$\begin{aligned}
 \text{Total direct operating cost} &= \text{Total bunker cost} + \text{Total post charges} \\
 &= 403,481.6 + 175,000 \\
 &= \text{USD } \underline{578,481.6}
 \end{aligned}$$

- Calculation for Net Freight Expenses :-

Gross freight :

$$80,000 \times 13.542 = 1,083,360$$

$$4,000 \times 13.542 \times 50\% = 27,084$$

$$\text{Total gross freight} = 1,110,444 \text{ USD.}$$

Address commission = 2.5%

Brokerage = 1.25%

Total commission = 3.75%

$$3.75\% \text{ of total gross freight} = \text{USD } 41,641.65$$

(Less) Total commission = USD 41,641.65

Total Net freight expenses = Total gross freight - Total commission

$$= 1,110,444 - 41,641.65$$

$$= \text{USD } \underline{1,068,802.35}$$

- Gross operating profit calculation :-

GOP = Total Net freight expenses - Total direct operating cost.

$$\text{GOP} = 1,068,802.35 - 578,481.6$$

Gross operating profit = USD 490,320.75

- Time charter yield calculation:-

Time charter yield = $GOP / \text{Total voyage days}$

$$= \frac{490,320.75}{17.52}$$

$$= 27,986.344$$

Time charter yield = USD 27,986.344 per day

- Net operating profit calculation:-

N.O.P. = Time charter yield - Standing charges

Standing charges = USD. 14,000 per day

$$N.O.P. = 27,986.344 - 14,000$$

$$= 13,986.344$$

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Net operating profit = USD 13,986.344 per day

Q-7. Vessel : M.V. MUNICH

- Loading details :-

60,000 mt of wheat in bulk loaded at the rate of 10,000 mt per wwd - shex uu - inatc

- Laytime allowed :-

$$\text{Laytime} = \text{Quantity loaded} / \text{Loading rate}$$
$$= 60,000 / 10,000$$

Laytime allowed = 6 days.

- Commencement of laytime :

N.O.R. : Wednesday 5th July 1030 hrs

N.O.R + Turn time : Wednesday 5th July 1630 hrs

Comm. Loading : Wednesday 5th July 1800 hrs

Laytime commencement -

Wednesday 5th July 1630 hrs

- Cessation of laytime :

Loading completed : Tuesday 11th July 0636 hrs.

Laytime calculation :-

Day	Date	Time	Duration DD:HH:MM	Remarks
Wed.	5 th July	1630 - 2400	00:07:30	L.T. started
Thurs.	6 th July	0001 - 0600	00:06:00	Raining from
		1200 - 2400	00:12:00	0600 - 1200 hrs
Fri	7 th July	0800 - 1600	00:08:00	Local holiday
Sat	8 th July	0001 - 0700	00:07:00	Strong winds
		1300 - 2400	00:11:00	No loading b/w 0700 - 1300 hrs
Sun	9 th July	0800 - 1400	00:06:00	Loading b/w 0800 - 1400 hrs
Mon	10 th July	0001 - 2400	00:14:24	$\frac{3}{5} \times 24$ hrs loading
Tues	11 th July	0001 - 0636	00:06:36	L.T. cessation @ 0636 hrs.

Total = 00:77:90

Total laytime taken = 77 hrs 90 min
 = 78.5 hrs
 = 3.2708 days.

• Calculation for demurrage / dispatch.

Total laytime allowed = 6 days

Total laytime taken = 3.2708 days

As, laytime allowed > laytime taken

It is a case of despatch.

$\therefore$ Despatch days = 6 - 3.2708

Despatch days = 2.7292 days.

Value of demurrage = US \$ 20,000 pdpr

Despatch = Demurrage / 2

~~Value of~~ Despatch cost = \$ 10,000 pdpr

Despatch for the load port = $2.7292 \times 10,000$

= 27,292

Despatch to be given = USD \$ 27,292.

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Q-4(a) Vessel: M.V. Scott Prince

Summer dwt = 38,000 mt

draft = 11.180 m ssw

TPC = 47

draft at loadport = 11 m

Constants + bunkers = 1750 mt

(i) • Dwt for draft 11 m:

Change in draft $\times$ TPC = Weight ^{lost} ~~of cargo~~
(in cm)

Change in draft = 11.180 - 11 = 0.18 m
= 18 cm

Weight lost = 18 $\times$ 47
= 846 mt

Dwt at 11 m draft = 38,000 - 846
= 37,154 mt.

• Deadweight cargo capacity (DWCC):

DWCC = Deadweight - (Constants + bunkers)
= 37,154 - 1750

DWCC = 35,404 mt

Freight for iron ore = \$ 6 pmt

Revenue earned from iron ore = 35,404 $\times$ 6
= \$ 212,424



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No. of Supplement :+2.....

MUMBAI

Examination :- PGDSM - FIRST YR./ FINAL YR./ ASSOCIATESHIP / FELLOWSHIP

Month March Year 20 25

Subject Chartering

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62/03/25

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Q-1(a) (ii) NAABSA

Full form - Not always afloat but safely aground.

This term is normally used for the ports where there is a draft restriction. So regarding the term, the vessel may enter the port but at low tide the vessel may get grounded without causing any damage to the vessel's integrity. The sea bed provided by these ports or at these ports is of soft sand which doesnot cause any damage to the vessel's integrity even if they gets grounded.

(iii) DWCC

Full form - Dead weight cargo capacity

This term indicates or give a measure of the safe cargo carrying capacity of a vessel at a given draft, i.e. normally summer draft. It is generally given by the difference between the deadweight of the vessel and the constants of the vessel like ballast, cargo, provision, spares, bunker, etc. It tells the cargo that can be loaded up to a given draft without affecting the stability of the vessel.

(iv) BBB

Full form - Before breaking bulk.

~~Regarding this term~~, This term is included in the charter party which indicates the ~~payment of the~~ freight to be paid to the carrier before the commencement of the unloading^{at}. It states that " Freight not to be paid until after arrival at the discharge port but before the commencement of the discharge." Freight to be paid before the commencement of the discharge at the first discharge port. After making the payment only, unloading can be commenced.

(v) BB

Full form - Break bulk, Ballast bonus, Bulbous bow.

Ballast bonus :

It is a bonus or reward which is given by the charterer to the ship owner for the delivery of the vessel in the ballast voyage at the asked location.

Bulbous bow :-

It is the foremost part of the ship which is so designed to reduce the restriction to the vessel's speed because of the drag or the resistance caused by the sea waves.

(b) (ii) First Class Charterer :-

When the ~~charterer~~^{broker} do not want to disclose the name of the charterer, at that ~~the~~ time the anonymous charterer is referred or called by the name first class charterer.

In many cases, charterers do not want to disclose their identity and do not want to come in front. They just only deal with the brokers and not straightly with the ship owners. So for to address them by some name, first class charter term is used.

(iii) Cross Trade

This type of trade consists of the transportation of the cargo from one foreign port to another foreign port with ~~town~~ the cargo touching the ~~country~~ of the registry of the vessel.

In the cross-trade, the vessel does not visit the country where it is registered, charterer's country, ship owner's country. This provides the charterer and the ship owner to tap into the international markets which results in better freight rates and higher exposure to the foreign and international markets.

(iv) Air draft :-

It is the vertical distance from the water line to the highest point of the vessel i.e. the mast of the ship or if any superstructure. Air draft is very critical as it helps in routing calculation and confirming whether a vessel will safely navigate and pass

below the bridge or wires. By knowing the air draft, charterers or ship owners can route their vessel more efficiently.

If the air draft is more, they have to go for a different route - planning for the vessel.

(i) P & I bunkering clause:

It is a clause describing any third party claim during the bunkering. P & I stands for the protection & indemnity.

If there is any third party damage or loss, personal injury during the time of the bunker, P & I will provide the claim or cover the liability for that situation.

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02/03/2025

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No. of Supplement :+1.....

MUMBAI

Examination :- PGDSM - FIRST YR./ FINAL YR./ ASSOCIATESHIP / FELLOWSHIP

Month March Year 20 25

Subject Chartering

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- Calculation for corn :-

$$DWCC = \text{Cubic Metre capacity} / \text{Stowage factor}$$

Cube meter capacity ~~in~~ is in cubic metres, that's why we have to convert the stowage factor into cubic metres

$$\text{Stowage factor} = 63 / 35.32$$

$$= 1.7837$$

$$\therefore DWCC = 49250 / 1.7837$$

$$= \$ 27,611.145 \text{ Mt}$$

$$\text{For corn} = \$ 12 \text{ pmt}$$

$$\text{Revenue earned from corn} = 27,611.145 \times 12$$

$$= \$ 331,333.744$$

~~Corn~~ Hence, we can conclude that corn will generate more revenue.

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- (ii) If there will be no draft restrictions at the loadport.

DWCC for iron ore = Deadweight - (constants + bunkers)

$$DWCC = 38,000 - 1750$$

$$DWCC = 36,250 \text{ mt}$$

$$\begin{aligned} \text{Revenue earned} &= 36,250 \times 6 \\ &= \underline{\$ 217,500} \end{aligned}$$

Still the revenue earned from corn is more. Hence, it is more profitable to transport corn in the given scenario.

(b) Vessel : M.V. Bull Horse

Fixed on time charter basis for ~~3 months~~
3 Months +/- 15 days CHOITION

Daily charter hire rate = US \$ 13,000 pdpr.

Vessel delivery : 30 June 2024 / 1000 hrs

Vessel re-delivery : 08 October 2024 / 1400 hrs.

- Calculation for the time period the vessel was hired:

Date	Time	Duration DD: HH: MM	Remarks
30 th June	1000 - 2400	00 : 14 : 00	Delivery of vessel.
1 st July - 29 July	0001 - 2400	29 : 00 : 00	
30 th July	0001 - 0800	00 : 08 : 00	Main Engine
31 st July	1300 - 2400	00 : 11 : 00	Breakdown.
1 st Aug - 07 th Aug	0001 - 2400	07 : 00 : 00	
08 th Aug	0001 - 0600	00 : 06 : 00	Crew change
08 th Aug	1600 - 2400	00 : 08 : 00	
09 th Aug - 14 th Aug	0001 - 2400	06 : 00 : 00	Non-availability of Stevedores on 15 th Aug
16 th Aug - 31 st Aug	0001 - 2400	16 : 00 : 00	
01 st Sep - 30 th Sep	0001 - 2400	30 : 00 : 00	
01 st Oct - 03 rd Oct	0001 - 2400	03 : 00 : 00	
04 th Oct	0001 - 0800	00 : 08 : 00	Rain
	1800 - 2400	00 : 06 : 00	
05 th Oct - 07 th Oct	0001 - 2400	03 : 00 : 00	
08 th Oct	0001 - 1400	00 : 14 : 00	
Total :		94 : 75 : 00	
Total hire period = 94 days 75 hrs			
= 97.125 days.			

Total charter hire cost = $97.125 \times 13,000$

= US \$ 1,262,625

(Less) Under performance claim = US \$ 40,000

Total hire to be paid by charter

= $1,262,625 - 40,000$

= US \$ 1,222,625

Amount already received by owner = US \$ 850,000

Balance amount = $1,222,625 - 850,000$

= US \$ 372,625

Hence, the balance amount payable by charterers to owners is US \$ 372,625.

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No. of Supplement :+3.....

MUMBAI

Examination :- PGDSM - FIRST YR./ FINAL YR./ ASSOCIATESHIP / FELLOWSHIP

Month MARCH Year 20 25

Subject Chartering

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2/3/25

Q-2 (i) Contract of Affreightment :-

It is a contract or agreement between the shipowner and the charterer. Unlike other charter party agreements, which involve hiring or chartering the vessel for a specific voyage or period, contract of affreightment is the agreement in which charterer asks the ship owner to transport specific amount of cargo from one port to another using multiple voyages.

In contract of affreightment, charterer does not hire the vessel but instead he just provide his cargo for the transportation from one place or port to intended destination. By this, charterer relieves himself from any ~~kind~~ kind of obligations regarding the ship's operation, maintenance, crewing, etc. as he will not be hiring or chartering the vessel from the ship owner.

(ii) Subjects are the conditions or the stipulations which must needed to be addressed and agreed upon by both the parties involved before finalising the charter party. Subjects may include approval from oil suppliers, terminal agreements or operational requirements. Subjects are very important

and needed to be addressed and concluded before drafting and finalising of the charter party. As soon as these conditions or stipulations are settled, the charter party will be finalised and drafted but before that charter party will be deemed as null and void.

(iv) LOT :-

LOT stands for the ~~the~~ letter of indemnity. It is the letter provided to indemnify the ship owner or the shipper. It is generally issued if the original bill of lading is not produced. If the cargo is damaged or not in good condition but shipper ask for the clean bill of lading. At this time Letter of indemnity will be issued in order to prevent themselves from any kind of claims which may occur in the future. Indemnify may mean to shift the blame. By issuing letter of indemnity the carrier ~~is~~ is shifting his blame to the other party.

(v) Baltic Indices :-

Baltic indices are a series of shipping freights which is generated by the Baltic exchange in London. For the dry bulk carriers there is Baltic Dry index which provides the ~~freight~~ average average freight rate for the carriage of dry cargo like grain, iron ore, etc. for specific voyage routes.

There are other specific baltic indices also like baltic clean tanker indices (BCTI) used for clean petroleum products and baltic dirty tanker index (BDTI) used for the crude oil tankers. They provide an average estimation of the freight for a large number of voyages. These are relevant for the calculation of the average freight which a charter may incur in the transportation of the dry cargo for a specific transportation route. This helps charterers to manage their resources more efficiently.