



INSTITUTE OF
CHARTERED
SHIPBROKERS

POSTPONED MAY 2020 EXAMINATION SESSION

TUESDAY 14TH JULY 2020 – MORNING

SHIP OPERATIONS AND MANAGEMENT

Time allowed – three hours

Answer any FIVE questions – all questions carry equal marks

Please read the questions carefully before answering

1. Answer **ALL** parts of the question.
 - a) Describe **ONE** of the following types of vessels including dimensions, tonnages, cargo gear and equipment.
 - i. A Handymax bulk carrier
 - ii. An Aframax tanker.
 - iii. A Feeder container vessel.
 - b) Draw a side profile and cross section of your chosen vessel
 - c) Label the significant parts of your chosen vessel in your drawing.
 - d) Give details of **ONE** trade this vessel operates in, where and how it will load, carry and discharge its cargo. Use the world map provided to support your answer.

2. Answer **ALL** parts of the question.

Commercial vessels that are trading on international voyages and are not equipped with scrubber systems must now carry two types of Low Sulphur conventional fuels unless they use LPG or similar systems.

 - a) Give full details of these fuels and where each fuel will need to be used. Using the world map provided show the different ECA, SECA and other restricted areas and the limits of these.
 - b) How can a vessel operator ensure that they get the correct fuel at a reasonable price and what precautions should be taken to check this?

PLEASE TURN OVER

3. Answer **ALL** parts of the question.

One of your vessels has been fixed to carry out the following voyage. Using the factors below calculate;

- a) What quantity of cargo can be loaded? (Show your working)
- b) Where you would organise bunkers and what quantity would you stem giving your reason for this.
- c) Calculate the daily net profit for the voyage. (Show your workings)

Vessel is currently completing discharge at Freemantle, Western Australia and is fixed to load Port Giles, South Australia for discharge at Yokohama in Japan.

Bunker ROB on completion Freemantle = 540 MT VLSFO 0.5%S at \$680 pmt.

Vessel must have a total of at least 400 MT VLSFO on board at all times to cover safety margin and will use only VLSFO on the voyage. Intention is to place vessel on spot market at Yokohama with at least **400 MT VLSFO** on board.

SDWT 75,400 MT on 14.20 M

Cubic Grain 87,849 M3

Constant incl FW 740 MT

Loaded speed 13 KTS on 32 MT FO per day

Ballast speed 13 KTS on 29 MT FO per day

Port consumption 4 MT FO per day

Vessel Daily Running Cost \$12,000 per day

Cargo 60,000 MT grain 10% MOLOO (SF 1.35) Port Giles - Yokohama

Max DWAT at Load port 70,000 MT, no draft restrictions at load, discharge or bunker ports.

10,000 MT SSHEX at Load/12,000 MT SSHINC at Discharge.

Freight \$21 FIOST per Metric Tonne

Commission 5%.

Distances

Freemantle to Port Giles 1320 NM

Port Giles to Yokohama 5270 NM

Bunker Prices

Freemantle VLSFO \$690 pmt after completion but delay extra 12hrs.

Port Giles VLSFO \$700 pmt concurrent with loading

Yokohama VLSFO \$700 pmt (at anchorage after discharge)

Port charges

Port Giles \$70,000

Yokohama \$85,000

4. Answer **BOTH** parts of the question.

a) Explain what specific certificates and other documents a vessel carries to show compliance with the International Safety Management (ISM) code; what are their validity, which bodies issue these certificates and what do these certificates signify? What other documentation should the vessel have to support these certificates?

b) Explain the role and responsibilities of the DPA regarding the safe operation of each vessel and the proper implementation of the Safety Management System.

5. Answer **ALL** parts of the question.

Your company is due to accept delivery of a new build vessel and this will be registered with an open registry.

a) What are the advantages and disadvantages of registering with an open registry?

b) What specific certificates for the vessel will be issued by this flag and what do they signify?

c) Give details of five other certificates which will be issued under the authority of this Flag together with their validity and what they certify. Which organisations will likely issue these?

6. The company you work for currently manages a fleet of 30 vessels, a mixture of tankers and bulk carriers for which you have commercial, technical and operational management.

Describe the various departments that would be in the company and explain the key functions and responsibilities of each department.

Draw an organisational chart for the company and identify the key roles within it.

7. Answer **BOTH** parts of the question.

a) You have been asked to prepare a budget for a recently acquired vessel by an owner with a mixed fleet of vessels under your company's management. Describe in detail the information you will need about the vessel and the significance of these in order to prepare the budget properly.

b) Briefly describe all the different costs associated with the ownership and operation of a vessel.

How would you allocate the following cost items and why would they fall into these categories.

Pilotage Invoice

Crew Travel for joining vessel

Port Dues

Supply of Provisions

Deductible on a cargo claim.

Additional War Risk Premium

Supply of Lubricants and Greases.

Installation of a Scrubber unit.

PLEASE TURN OVER

8. Define and explain any **FIVE** of the following abbreviations:

- i. IMSBC Code
- ii. AWRP
- iii. SEEMP
- iv. IOPP
- v. PFSO
- vi. BWMP.
- vii. IEEC.
- viii. NAABSA
- ix. NDFFCAPMQS
- x. WIBON