



TUESDAY 28th APRIL 2015 – AFTERNOON

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 **both** parts of this question:

Your vessel is berthing in a fast flowing river port when a loss of power leads to the vessel colliding with the jetty and holing the Number 1 port ballast wing tank, despite the prompt actions of the tugs assisting the vessel. A head rope, which had been made fast, breaks, and injures a shore lineman and one of your crew just as power is restored.

- a. What immediate action should be taken on board the vessel to deal with this incident and what insurances do you have in place to cover this?
- b. What assistance is available ashore and in your management office to assist the Master and meet your obligations to all the parties involved with the vessel?

2. Answer **all** parts of this question:

a. Describe the characteristics (dimensions, tonnages, cargo gear etc) of **one** of the following types of vessels:

- i. A Panamax bulk carrier
- ii. A VLCC tanker
- iii. A container feeder vessel.

b. Draw a profile and cross-sectional diagram of your chosen vessel. Illustrate your answer by clearly labelling the significant parts.

c. Give details of **one** trade the vessel operates in and how it will load, carry and discharge its cargo, illustrating you answer with the world map provided.

PLEASE TURN OVER

3. Your vessel Ocean Queen will complete discharge at Fremantle, Western Australia and is fixed to load Port Lincoln, South Australia for discharge at Kobe in Japan.

Bunker ROB on completion Fremantle

110 MT LSFO at US\$550 pmt.

50 MT LSGasoil at US\$1000 pmt

260 MT HSFO at US\$480 pmt.

Vessel must have a total of at least 300 mt FO (LSFO & HSFO) on board at all times to cover safety margin. Vessel will not use LS gasoil on planned voyage. Intention is to place vessel on spot market at Kobe with at least 300 mt FO on board.

SDWT 75,400 mt on 14.20 M

WDWT 73,425 mt on 13.90 M

Cubic grain 87,848 m³

Constant incl FW 690 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 US\$12,000 per day

Cargo 60,000 mt grain 10% MOLOO (SF 1.35) Port Lincoln-Kobe

Max DWAT at load port 65,000 mt, no draft restrictions at load, discharge or bunker ports.

11,000 mt SHEX at Load/10,000 mt SHINC at discharge.

Freight \$19.5 FIOS pmt

Commission 5%.

Distances

Fremantle to Port Lincoln 1,280 NM

Port Lincoln to Kobe 5,510 NM

Bunker Prices

Fremantle HSFO US\$490 pmt + US\$4,000 barging charge (can be taken during current discharge)

Port Lincoln HSFO US\$500 pmt concurrent with loading

Kobe HSFO US\$485 pmt (at anchorage after discharge)

Port charges:

Port Lincoln US\$65,000

Kobe US\$82,000

Using the above calculate:

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

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4. Answer **both** parts of this 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 this in order to do this properly.

b. Briefly describe the different costs associated with the ownership and operation of a vessel. A colleague has had to take sick leave and in picking up some of his work a number of invoices for one of his vessels need to be sorted to apportion the costs appropriately.

How would you allocate the following cost items and why would this be?

- i. Pilotage invoice
- ii. Crew travel for joining vessel
- iii. Port dues
- iv. Supply of provisions
- v. Deductible on a cargo claim
- vi. Additional war risk premium
- vii. Supply of lubricants and greases
- viii. Installation of voyage data recorder.

5. Your Panamax bulker is fixed to load a max cargo soya beans at Baltimore USA in September for discharge at Fremantle, Western Australia. The vessel can be routed via the Panama Canal or the Suez Canal or the Cape of Good Hope. What factors would you take into account when deciding which route the vessel should take? What resources are available to assist you in this decision? Illustrate your answer using the world map provided, marking the possible routes and key features from your answer.

6. Answer **both** parts of this question:

a. The ISPS code was not designed to protect ships from threats in ports; it was designed to protect ports from threats posed by ships. Discuss the validity of this statement.

b. What benefit has the ISPS code been to shipping and what requirements and documentation must be shown by a vessel and its management to show compliance with the code?

PLEASE TURN OVER

7. Answer **all** parts of this question:

a. It is a requirement of the ISM code that your company ensures that each ship is manned with qualified, certificated and medically fit seafarers. As a ship manager which does not contract out any management functions, show how you would ensure that this requirement is met.

b. What might be the consequences of a Port State Control Officer boarding one of your vessels on arrival at Rotterdam and discovering that one of the crew members is not properly qualified?

c. The Maritime Labour Convention 2006 adopted by the ILO has come into force in a number of countries within the last year. What four basic seafarer's rights does it aim to protect?

8. Answer **all** parts of this question:

You have been asked by a potential investor about the costs of ship owning.

a. Clearly explain the difference between fixed costs, operating or daily running costs and voyage costs

b. List as fully as possible the different cost items you would expect to see in each of these categories.

c. You have received a list of costs below for a vessel under your management. How would you apportion these costs below and which would be for the Owners directly under fixed costs?

- i. Port dues
- ii. Supplementary P&I call
- iii. War risk insurance premium
- iv. Additional war risk premium
- v. Pilotage cost
- vi. Supply of fuel oil bunkers
- vii. Draft survey
- viii. Registration costs
- ix. Agency fees
- x. New radar system for the vessel.