THURSDAY 27\textsuperscript{th} November 2014 – 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. (a) Describe the characteristics (dimensions, tonnages, cargo gear, etc) of one of the following types of vessels:

   i. a Handymax bulk carrier
   ii. a Suezmax tanker
   iii. an existing Panamax container vessel.

(b) Illustrate your answer with a profile and cross-sectional drawing, clearly labelling the significant parts of your vessel.

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

2. You work in the operations department of an owner manager and one of your vessels has been fixed for a voyage.

   a) What information must you ensure you find out about the nature of the employment of the vessel?
   b) What information would you expect to find out from an agent?
   c) What particular requirements of the vessel at the load/discharge port should be checked with the ship managers?
   d) What would you ensure that you find out from the agent when the vessel arrives at the load port?
3. Your vessel *Grain King* will complete discharge in Amsterdam, the Netherlands and is fixed to load Necochea, Argentina for discharge at Bangkok, Thailand.

Bunkers remaining on board (ROB) on completion in Amsterdam:

i. 110 MT LSFO at USD 635 pmt,
ii. 50 MT LSGasoil at USD 1,100 pmt, and
iii. 250 MT standard HSFO at USD 600 pmt.

The vessel must have a total of at least 300 MT FO (LSFO & HSFO) on board at all times to cover the safety margin.

The vessel will not use LSGasoil on the planned journey.

SDWT: 72,525 MT on 13.80 meter
WDWT: 70,102 MT on 13.34 meter
Cubic Grain: 84,195 m³
Constant (incl. FW): 720 MT
Loaded speed: 13 kts on 30 MT FO per day
Ballast speed: 14 kts on 30 MT FO per day
Port Consumption: 4 MT FO per day

Cargo 60,000 MT grain 10% MOLOO (SF 1.43) Necochea to Bangkok.
Max DWAT at load port 61,000 MT, no draft restrictions at discharge or bunker ports.
9000 MT SHEX at load/10,000 MT SHINC at discharge.
Freight USD 38 FIOS per MT
Commission 5%

Distances:
- Amsterdam to Necochea: 6,496 NM
- Amsterdam to SW edge of SECA: 450 NM
- Necochea to Bangkok: 10,014 NM
- Necochea to Singapore: 9,183 NM
- Singapore to Bangkok: 831 NM

Bunker Prices:
- Amsterdam: HSFO USD 590 pmt (concurrent with current discharge)
- Necochea: HSFO USD 615 pmt (concurrent with loading)
- Singapore: HSFO USD 570 pmt (calling cost USD 1,500)
- Bangkok: HSFO USD 600 pmt (concurrent with discharge)

Port Charges:
- Necochea: USD 60,000
- Bangkok: USD 73,000

PLEASE TURN OVER

The Institute of Chartered Shipbrokers examinations November 2014
Using the above calculate:

a) What quantity of cargo can be loaded (show your calculations)?
b) Where you would organise bunkers and what quantity you would stem, giving your reason for this.
c) Calculate the daily earnings (show your calculations).

4. You have received a call from your managed vessel reporting that while alongside discharging, one of the ship’s cranes has collapsed into the cargo hold causing some structural damage to a hatch and hold tank top and injuries to a crewman and one of the stevedores.
   a) What immediate action needs to be taken on board the vessel to manage this situation?
   b) What immediate action needs to be taken by the managers to ensure all necessary parties are made aware of this incident and the safety of the ship, crew and cargo?
   c) What insurances will the vessel have in place to cover this incident?
   d) Under what circumstances might you consider declaring General Average in an incident?

5. The company you work for currently manages a fleet of 16 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.

6. On a voyage from Rotterdam, the Netherlands to Houston, USA what specific grades of bunkers would you expect the vessel to use to fully comply with the latest MARPOL or EU regulations?

   One of your vessels has reported some problems using a recently bunkered parcel of fuel oil. What procedures would you expect your company to have in place to ensure that your vessel receives bunkers of specified quantity and quality at a competitive price and avoids any problems arising with using these?

7. How can a company ensure that it crews its ships with the highest quality, qualified, certificated and medically fit seafarers as required by the ISM Code and what are the possible consequences of failing to do this?

PLEASE TURN OVER
8. Weather routeing services for ships are widely available.

   a) What use is made of these by commercial shipping?
   b) What are the benefits of using a weather routeing service?
   c) Your Panamax vessel will complete loading a full cargo in Gdansk, Poland in early January and is bound for Charleston, USA. What weather would you expect to encounter en route? What choices would you make regarding the route to take and what might be the benefits of weather routeing?

   Use the world map provided to support your answer.