



PENINSULA
COLLEGE
GEORGETOWN DK266-03(P)



UNIVERSITY OF
PLYMOUTH

FINAL EXAMINATION

Semester	:	JANUARY 2024 SEMESTER
Programme Name	:	BSC (HONS) MARITIME BUSINESS (LOGISTICS)
Course Code & Name	:	MAL2041 MARITIME MANAGEMENT AND OPERATIONS
Duration	:	2 HOURS

INSTRUCTIONS TO CANDIDATES:

1. Please read the instructions given in the question paper **CAREFULLY**.
2. The question paper consists of **FOUR (4)** questions.
3. Answer **ANY THREE QUESTIONS** in the question paper.
4. Answers to the questions are to be written into the examination booklet.
5. Electronic dictionaries, lecture notes, files or any unauthorised materials except writing equipment are strictly prohibited.

This question paper must be submitted along with all used and/or unused rough papers and/ or graph papers (if any). Candidates are **NOT ALLOWED** to take any examination paper(s) used or unused out of the examination hall.

WARNING:

The Examination Board of Peninsula College Georgetown regards cheating as a very serious offence and will not hesitate to mete out the appropriate punitive actions according to the severity of the offence committed, and in accordance with the clauses stipulated in the Students' Handbook, up to and including expulsion from Peninsula College Georgetown.

(This booklet contains 3 printed pages including this page)

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE ALLOWED TO DO SO

Answer **ANY THREE (3) QUESTIONS** on the separate sheet provided. **[100 marks]**

1. a) Discuss the roles and responsibilities of shipbrokers in the maritime industry. (50 marks)

 - b) Explain the factors contributing to the higher price of second-hand vessels compared to the new building price. (30 marks)

 - c) Describe Forward Freight Agreements (FFA) and the advantages of this application on contracts made on principal-to-principal. (20 marks)
- Total: [100 marks]

2. The International Labour Conference, in its 110th session, has adopted a series of significant amendments to the Maritime Labour Convention, 2006. These changes are expected to come into effect in December 2024.

- a) Discuss the key changes to the Maritime Labour Convention, 2006. (50 marks)

 - b) Explain the impacts of this amendment on the working lives of seafarers. (50 marks)
- Total: [100 marks]

3. MASTER / OWNERS TO COMPLY WITH OUR FOLLOWING LOADING INSTRUCTIONS:
ALL VOYAGE ORDERS ARE GIVEN SAFE NAVIGATION AND WEATHER PERMITTING.

Any orders coming directly from Shippers/Consignees/brokers/agents/pilots or anyone else regarding commercial matters must not be accepted by the Master before having requested and received agreement from Charterers.

Extract from Voyage Order MT Peninsula

AAA) LAYCAN: 01-02 February 2024 (00:01-23:59)

BBB) LOAD PORT: Vessel is to proceed to the Phillips 66 "Beaumont" Terminal, located on the Neches River, adjacent Smith Bluff Light #3. Current plan is for vessel to berth at Dock 2.

CCC) CARGO:

600,000 NET bbls (+/- 5%) of Bakken Crude Oil(43 API)

Vessel to request maximum loadable volume, always consistent with safe departure drafts at Load Port, but never above 630,000 NET bbls.

CONSIGNOR FULL STYLE - HESS ENERGY RESOURCES SALES LLC, 1501 McKinney Street, Houston, Texas 77010, USA.

CONSIGNEE FULL STYLE – IRVING OIL WHITEGATE REFINERY LIMITED, Whitegate Village, Whitegate, CO. Cork Ireland.

DDD) SPECIAL INSTRUCTIONS:

- Vessel is to arrive at load port fully inerted and remain in such a state throughout the voyage.

- Cleaning is not required for the load tanks, but all lines, tanks, and pumps should be striped and drained properly before arrival at the load facility.
- Slops are to be consolidated prior to arrival, and any ROB is to be advised to Charterer upon receipt of these orders.
- Upon receipt of these orders please send the stow plan for vessel (including max loadable volume).
- Charter Brokerage will be filing required customs documents and is to be copied on all relevant correspondence.
- If bunkering in route to disport, please advise timing as soon as known.
- Early loading is permitted if called in early by the load terminal.
- Max loaded arrival draft at disport (Whitegate, Ireland) 13.25 Mtrs.
- Max Waterline/Manifold height never to exceed 16.0 Mtrs during entire discharging ops.
- Max distance bottom step lowered accommodation ladder to center manifold not to exceed 38 mtrs at disport.
- Vessel is equipped with soft rope tails for mooring at disport.
- No crew change allowed at Whitegate, this includes crew change by launch during discharge operations at the Whitegate Refinery berth.
- If the difference between ship and shore figures loadport is below 0.3% applied Master to sign Bill of Lading with LOP issued.
- If the difference between ship and shore figures loadport is above 0.3% applied Master should not sign any documents, contact charterer proceed to other measurement.

EEE) DISCHARGE PORT(S):

Upon completion of loading, vessel is to proceed to Whitegate, Ireland for full discharge at Whitegate Refinery.

FFF) RECEIVERS: Irving Oil Whitegate Refinery Limited

- a) Based on the voyage order extract above vessel MT Peninsula calling "Beaumont", is located on the Neches River, Texas USA. Determine the time MT Peninsula should tender NORT (Notice of Readiness Tendered) with justification. (10 marks)
- b) MT Peninsula will be performing loading operations and de-ballasting operations while the vessel berth at Dock 2, Beaumont Neches River. As a tanker vessel loading Bakken Crude Oil and de ballasting, demonstrate the safety measures and preparation required during this port call. (50 marks)
- c) As per the above voyage order MT Peninsula instructed to load 600,000 NET Bbls (+/- 5%) of Bakken Crude Oil. As per the ship shore agreement before the loading operation, cargo final stoppage by the terminal. Upon completion of loading and tank inspection found that the ship loaded figure 631,341.541 Bbls of Bakken Crude Oil. Final Bill of Lading figure 628,985.000 Bbls of Bakken Crude Oil. Based on the above cargo loaded figure describes the role of Master, Ship Owner and Charterer. (20 marks)

- d) SOF after completion of cargo:
3 February 2024
1200LT – Completion of Loading operation
1212LT – Tank Inspection commence
1342LT – Tank inspection completed.
1430LT – Completed calculation
1500LT – Disconnection of Loading Arm
1530LT – Unmooring
1900LT – Pilot Away
2000LT – FAOP (Full Away of Passage)

Based on the above SOF, calculate the ETA of the vessel MT Peninsula to discharge port Whitegate, Ireland in local time. Distance from load port Beaumont (GMT -06) to Whitegate Ireland (GMT +01) 5320nm. As per the charterer's instruction vessel is to maintain an average speed of 12.5 kts for this loaded passage. (20 marks)

Total: [100 marks]

- 4 a) A cargo ship is travelling from Asia to Europe, carrying no cargo and needing to fill its ballast tanks. The captain has the option to:
- Exchange ballast water mid-ocean (BWE) at a designated area.
 - Use an onboard ballast water treatment system (BWTS) to treat the water taken from its original source.
 - Discharge the untreated ballast water upon arrival in Europe.

Select any option the vessel should choose with justification.

(Considering environmental regulations, operational efficiency, and potential risks).

(50 marks)

- b) Advancements in biotechnology are raising possibilities for new, more efficient BWTS technologies. Discuss the factors that contribute to the future of ballast water management in the shipping industry.

(50 marks)

Total: [100 marks]

- END OF QUESTIONS -