



**UNIVERSITI KUALA LUMPUR**  
**MALAYSIAN INSTITUTE OF MARINE ENGINEERING TECHNOLOGY**

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**FINAL EXAMINATION**  
**SEPTEMBER 2016 SEMESTER**

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**COURSE CODE** : LOB 10103  
**COURSE NAME** : FUNDAMENTAL OF MARITIME OPERATIONS  
**PROGRAMME NAME** : BACHELOR OF MARITIME OPERATION / BACHELOR OF MARINE ENGINEERING  
**DATE** : 19 JANUARY 2017  
**TIME** : 09.00 AM – 12.00 PM  
**DURATION** : 3 HOURS

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**INSTRUCTIONS TO CANDIDATES**

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1. Please **CAREFULLY** read the instructions given in the question paper.
2. This question paper has information printed on both sides of the paper.
3. This question paper consists of **TWO (2)** sections; Section A and Section B.
4. Answer **ALL** questions in Section A. For Section B, answer **THREE (3)** questions **WITH AT LEAST ONE (1)** question from question 4 or question 5.
5. Please write your answers on the answer booklet provided.
6. Answer all questions in English language **ONLY**.

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**THERE ARE 4 PAGES OF QUESTIONS, INCLUDING THIS PAGE.**

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SECTION A (Total: 40 marks)

**INSTRUCTION: Answer ALL questions.**  
**Please use the answer booklet provided.**

**Question 1**

By using a suitable example, briefly explain the below terms.

- (a) Freight (5 marks)
- (b) Shipping (5 marks)
- (c) Bulk Cargoes (5 marks)
- (d) Ship (5 marks)

**Question 2**

- (a) The maritime industry consists of various sectors employing maritime professionals of varying educational background and skills sets. By using a suitable example, explain **ONLY THREE (3)** types of maritime industry. (10 marks)
- (b) The effect of globalization in logistics and distribution patterns influence the development or decline of ports. On the other hand, there is a wide range of marine cargoes at seaport operated. Consequently, generalizes **ONLY THREE (3)** categories of marine cargoes. (10 marks)

## SECTION B (Total: 60 marks)

**INSTRUCTION: Answer 3(THREE) questions ONLY.**

**Please use the answer booklet provided.**

## Question 3

- (a) Bulk cargo is commodity cargo that is transported unpackaged in large quantities. It refers to material in either liquid or granular, particulate form, as a mass of relatively small solids, such as petroleum/crude oil, grain, coal, or gravel. Discuss the differentiate between bulk cargoes and break bulk cargoes. .

(10 marks)

- (b) Basically, a ship is a large buoyant watercraft. Ships are generally distinguished from boats based on size, shape and cargo or passenger capacity. Commercial vessels or merchant ships can be divided into several broad categories. Discuss **ONLY THREE (3)** types of ship.

(10 marks)

## Question 4

- (a) Shipbuilding is the construction of ships and other floating vessels. It normally takes place in a specialized facility known as a shipyard. Shipbuilders, also called shipwrights, follow a specialized occupation that traces its roots to before recorded history. Describe the main process for shipbuilding regards to **Ship Classification Society**.

(10 marks)

- (b) Launching of ships is one of the most important procedures of the entire ship construction process. The ship launching slipway, a structure consisting of a sloping way down to the water from the shipyard, is an essential aspect of the ship launching procedure and has been extensively used for launching newly made or repaired ships. By using a suitable example, Explain **ONLY THREE (3)** common methods for ship launching.

(10 marks)

**Question 5**

- (a) A port is a location on a coast or shore containing one or more harbours where ships can dock and transfer people or cargo to or from land. Ports with deeper water are rarer, but can handle larger, more economical ships. By using a suitable example, examine the principal roles of port.

(10 marks)

- (b) Hogging and sagging describe the shape of a beam or similar long object when loading is applied. Hogging describes a beam which curves upwards in the middle, and sagging describes a beam which curves downwards. Discuss the comparison between Hogging and Sagging.

(10 marks)

**Question 6**

- (a) The rise and fall of the tides play an important role in the natural world and can have a marked effect on maritime-related activities. From maritime operation point of view, describe the effects of tides on Malaysian maritime activity.

(10 marks)

- (b) Comply with the International Convention for the Safety of Life at Sea (**SOLAS**), 1974 requirements, the offshore industries requires continued development of new technologies in order to produce oil in regions, which are inaccessible to exploit with the existing technologies. Explain the deep water development system for the Floating Production, Storage & Offloading System (FPSO).

(10 marks)

**END OF QUESTION**