



**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 20102  
**COURSE NAME** : CARGO HANDLING SYSTEM  
**PROGRAMME NAME** : BACHELOR OF MARITIME OPERATION  
**DATE** : 25 JANUARY 2017  
**TIME** : 09.00 AM – 11.00 PM  
**DURATION** : 2 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) Broken stowage (5 marks)
- (b) Cargo plan (5 marks)
- (c) Dunnage (5 marks)
- (d) Tallying (5 marks)

**Question 2**

- (a) The effect of globalization in logistics and distribution patterns influence the development or decline of ports. On the other hand, there are a wide range of marine cargoes and documentations at seaport operated. Consequently, generalize **ONLY THREE (3)** type of cargoes documentations. (10 marks)
- (b) Cargo handling used to be a thoroughly manual operation. Human factor has not been eliminated completely. It is still part of the process and along with it, comes an abundance of safety concerns. Consequently, explain the duties of the Junior Cargo Officer in the course of cargo transfer. (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. Nevertheless, the term break bulk derives from the phrase breaking bulk. Thus, differentiate between bulk cargoes and break bulk cargoes.

(10 marks)

- (b) Basically, cargo handling defined as all articles, goods, materials, merchandise, or wares carried onboard an aircraft, ship, train, or truck, and for which an air waybill, or bill of lading, or other receipt is issued by the carrier. Regards to related documentations, examine the cargo handling operation.

(10 marks)

**Question 4**

- (a) An improved crude oil tank-cleaning process can reduce hazardous waste generated from tank bottoms and allow the recovery of valuable hydrocarbons. In terms of tank cleaning methods, Describe **THREE (3)** type of tank cleaning methods regards to Department of Environment Malaysia (**JAS**).

(10 marks)

- (b) Carriage of chemicals in bulk is covered by regulations in **SOLAS Chapter VII** - Carriage of dangerous goods and **MARPOL Annex II** - Regulations for the Control of Pollution by Noxious Liquid Substances in Bulk. Both Conventions require chemical tankers built after 1 July 1986 to comply with the International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (**IBC Code**). In terms of (**IBC Code**), analyzes **THREE (3)** type of chemical carriers.

(10 marks)

**Question 5**

- (a) The choice of container transport on Roll-on, Roll-off (**RO-RO**) or Lift-on/lift-off (**LO-LO**) vessels is always made on a case by case basis. If the shipper prefer faster delivery, Ro-Ro transport will be better suited to this. On the other hand, LO-LO system to keep transport costs low. Consequently, compare between LO-LO and RO-RO operations.

(10 mark)

- (b) Many ships are now equipped with loadicator systems or a loading computer with appropriate software for the cargo handling resolutions. Explain the advantages of this systems.

(10 marks)

**Question 6**

- (a) Under **SOLAS** chapter XI-2, on 1 July 2004, the International Ship and Port Facility Security Code (**ISPS Code**) has since formed the basis for a comprehensive mandatory security regime for international shipping. From cargo handling point of view, examine the roles of International Ship and Port Facility Security Code (**ISPS Code**) on Malaysian maritime activities.

(10 marks)

- (b) The **IMDG Code** is the recognized code of practice for the carriage of hazardous cargoes and is covered by four volumes, plus a supplement. Discuss the IMDG Code Volume 1 and IMDG Code Volume 4.

(10 marks)

**END OF QUESTION**