



UNIVERSITI KUALA LUMPUR
Malaysian Institute of Marine Engineering Technology

FINAL EXAMINATION
JULY 2025 SEMESTER SESSION

SUBJECT CODE : LMD13302

SUBJECT TITLE : INTRODUCTION TO MARINE ENGINEERING

PROGRAMME NAME : DIPLOMA OF ENGINEERING TECHNOLOGY IN
(FOR MPU: PROGRAMME LEVEL) MARINE ENGINEERING

TIME / DURATION : 2.00 PM - 5.00 PM
(3 HOURS)

DATE : 18 DECEMBER 2025

INSTRUCTIONS TO CANDIDATES

1. Please read **CAREFULLY** 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** question in Section A, and **TWO (2)** questions **ONLY** in Section B.
5. Please write your answers on this answer booklet provided.
6. Answer **ALL** questions in English language **ONLY**.

THERE ARE 2 PAGES OF QUESTIONS, EXCLUDING THIS PAGE.

SECTION A (Total: 60 marks)

INSTRUCTION: Answer ALL questions.

Please use the answer booklet provided.

Question 1

With reference to ship engineering watch:

- (a) Define engineering watch. (2 marks)
- (b) Explain FOUR (4) tasks to be done by watchkeeper during engineering watch. (10 marks)
- (c) State EIGHT (8) things to be informed to the relieving officer during end of duty. (8 marks)

Question 2

With reference to ship machineries:

- (a) State FOUR (4) convention under International Maritime Organization (IMO) (4 marks)
- (b) Explain THREE (3) major areas onboard ship. (6 marks)
- (c) State FIVE (5) machineries and their function in engine room. (10 marks)

Question 3

With reference to shipboard auxiliaries' machinery:

- (a) Define pump and its function onboard ship. (2 marks)
- (b) State FOUR (4) system that consists of a pump. (4 marks)
- (c) Sketch and label EIGHT (8) components of a single action reciprocating pump. (14 marks)

SECTION B (Total: 40 marks)

INSTRUCTION: Answer ONLY TWO (2) questions.
Please use the answer booklet provided.

Question 4

With reference to shipboard air compressor:

- (a) State FOUR (4) function of compressed air. (4 marks)
- (b) Sketch and label a single stage air compressor. (10 marks)
- (c) Explain the operation of air compressor in (b) (6 marks)

Question 5

With reference to fire fighting and safety system onboard ship:

- (a) Describe hazard. (2 marks)
- (b) Explain FOUR (4) hazards in the engine room. (10 marks)
- (c) Explain FOUR (4) causes of engine room fire. (8 marks)

Question 6

With reference to ship propulsion and arrangements:

- (a) Describe ship propulsion systems. (2 marks)
- (b) Explain THREE (3) types of propulsions system. (6 marks)
- (c) Sketch and label typical arrangement of a 4-stroke engine. (12 marks)

END OF EXAMINATION PAPER