



UNIVERSITI KUALA LUMPUR
Malaysian Institute of Marine Engineering Technology

FINAL EXAMINATION
OCTOBER 2025 SEMESTER SESSION

SUBJECT CODE	: LOB20803 / LOB20403
SUBJECT TITLE	: INTEGRATED TRANSPORT SYSTEM
PROGRAMME NAME (FOR MPU: PROGRAMME LEVEL)	: BACHELOR IN MARITIME OPERATIONS (HONOURS)
TIME / DURATION	: 2.00 PM - 5.00 PM (3 HOURS)
DATE	: 27 JANUARY 2026

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** questions in Section A (Multiple Choice Question) and **THREE (3)** questions in Section B (Essay Question)
5. Please write your Section A answer in OMR paper and Section B in the answer booklet provided.
6. Answer **ALL** questions in English language **ONLY**.

THERE ARE 7 PAGES OF QUESTIONS, EXCLUDING THIS PAGE.

SECTION A (Total: 40 marks)**INSTRUCTION: Answer all questions.****Please use the objective answer sheet provided.**

1. What is the analytical relationship between international transport agencies and national governments?
 - A. International agencies provide analytical frameworks and standards, while national governments adapt and implement them based on local contexts.
 - B. International agencies offer guidance and recommendations, but national governments independently decide how or whether to adopt these standards.
 - C. International agencies fully control national transport systems and policy decisions.
 - D. National governments have no role once international transport rules are established.

2. How does the International Air Transport Association (IATA) complement ICAO's role?
 - A. IATA manages air traffic control systems for all international flights.
 - B. IATA replaces ICAO by enforcing aviation laws through international courts and sanctions.
 - C. IATA represents airline interests by analysing operational challenges and coordinating industry practices within the framework of ICAO standards.
 - D. IATA provides support and recommendations to airlines but does not create or enforce international aviation standards like ICAO.

3. The International Maritime Organization (IMO) influence environmental performance in maritime transport by _____.
 - A. establishes international conventions that require countries to analyse ship emissions and implement compliance mechanisms through national maritime administrations.
 - B. manages port operations and directly inspects all vessels entering international waters.
 - C. provides technical guidance and policy advice to member states on reducing maritime pollution but does not directly enforce regulations.
 - D. owns commercial shipping fleets and replaces national maritime laws with global maritime courts.

4. Which analysis best explains the role of the International Civil Aviation Organization (ICAO) in global air transport governance?
- A. ICAO primarily develops international aviation standards that member states analyse and adapt into national regulations to ensure safe and orderly air transport.
 - B. ICAO mainly provides financial support to airlines and directly manages the operations of international airports worldwide.
 - C. ICAO directly operates international airports and controls airline ticket pricing across all member states.
 - D. ICAO enforces military aviation strategies among allied countries to control international airspace.
5. Choose the best answer to analyse the primary benefit of intermodal transport.
- A. Intermodal transport primarily increases costs due to the complexity of using multiple transport modes.
 - B. Intermodal transport focuses on replacing road transport with air transport only.
 - C. Intermodal transport eliminates the need for documentation and customs procedures across modes.
 - D. Intermodal transport reduces handling costs and improves supply chain efficiency by integrating multiple transport modes under coordinated scheduling.
6. Find the best statement explains the importance of multimodal transport in international trade.
- A. Multimodal transport increases customs complexity by requiring separate documentation for each mode.
 - B. Multimodal transport integrates shipping, road, rail, and air under one contract, streamlining customs, reducing delays, and improving trade efficiency.
 - C. Multimodal transport only applies to domestic freight and has little impact on international trade.
 - D. Multimodal transport relies solely on-air freight for global shipments.
7. Transport service providers enhance delivery reliability by _____.
- A. route planning, real-time tracking, and performance monitoring.
 - B. ignoring customer schedules and delivering based solely on vehicle availability.
 - C. limiting transport to certain regions without monitoring timelines.
 - D. outsourcing responsibility entirely to independent drivers without oversight.

8. Which statement best analyses the strategic role of third-party logistics (3PL) providers?
- A. 3PL providers act only as brokers with full authority in managing operations.
 - B. 3PL providers replace all company logistics staff without coordination.
 - C. 3PL providers manage transportation, warehousing, and distribution functions.
 - D. 3PL providers function exclusively as transport regulators and help the government.
9. _____ is the main role of technology in transport service provider operations.
- A. GPS, IoT and transport management systems to monitor shipments, optimize routes, and provide real-time data to client.
 - B. Technology is used only for administrative record-keeping and operational efficiency.
 - C. Technology increases costs and improving delivery outcomes and increase company profit.
 - D. Technology is limited to vehicle maintenance scheduling only.
10. Select the best road transport to carry bulk liquids such as milk or fuel.
- A. Tanker trucks
 - B. Refrigerated trucks
 - C. Flatbed trucks
 - D. Bonded trucks
11. A courier company delivers multiple small packages daily across rural areas. Which vehicle type is most efficient?
- A. Small size van
 - B. Medium size van
 - C. Motorcycle
 - D. Car
12. _____ is the most significant operational challenges in maritime transport.
- A. Delays in customs clearance and administrative procedures disrupt the planned schedules of ships.
 - B. Port congestion and inefficient cargo handling increase waiting times and operational costs for vessels.
 - C. Limited availability of berthing space at major ports restricts the smooth flow of maritime traffic.
 - D. Coordination issues between shipping lines, terminals, and logistics providers reduce overall efficiency.

13. Which security concern is most relevant in maritime transport today?
- A. Piracy and armed robbery pose direct threats to ships, crew, and cargo in high-risk regions.
 - B. Smuggling of illegal goods through ports undermines shipping security and legal compliance.
 - C. Cybersecurity breaches targeting navigation and communication systems affect vessel operations.
 - D. Terrorist attacks on critical maritime infrastructure disrupt shipping lanes and trade.
14. A government is reviewing different transport modes to improve road safety. Statistical data show that collisions per passenger-km are lowest in certain systems. Choose the safest in terms of passenger injuries and fatalities per distance travelled.
- A. Private cars
 - B. Motorcycles
 - C. Train
 - D. Taxi
15. A developing country wants to introduce an affordable public transport option in cities with limited funding. Which system is likely the most cost-effective to implement and operate?
- A. Grab car system
 - B. Electric Bus system
 - C. High speed train system
 - D. Light rail system
16. _____ are the economic impact of war affected shipping transport the most.
- A. War effect on freight rates or shipping expenses
 - B. Shipping companies face lower operating costs as military conflicts stabilize fuel prices
 - C. Insurance premiums for vessels and cargo rise sharply due to higher risks in conflict areas
 - D. Global trade insurance is suspended entirely, eliminating costs for ship operators
17. Select the latest innovation in urban mobility transport.
- A. E-hailing car
 - B. E-scooter rentals integrated with mobile apps
 - C. Private bicycles with no sharing or app integration
 - D. Implementation of bike-sharing systems

18. Which country is most innovative in autonomous shipping and port operations?
- A. Singapore
 - B. China
 - C. United States
 - D. South Korea
19. How does a 3PL provider benefit a company's supply chain?
- A. By providing expertise and services in logistics management
 - B. By managing administrative paperwork in logistics
 - C. By increasing product quality standards to save costs
 - D. By helping the company monitoring the operations
20. _____ is the most can affect the efficiency of cargo movement in ports.
- A. Poor port layout, and lack of modern cargo handling equipment
 - B. Bad weather issues especially storms, fog, or high waves
 - C. Overloaded storage yard full of containers
 - D. Lack of real-time tracking between ship and shore

SECTION B (Total: 60 Marks)**Instruction: Answer THREE (3) questions ONLY.****Please use provided answer paper.****Question 1**

An industrialized society cannot exist without an efficient transportation system. We often assume that product will move from where they are produced to where they are consumed with a minimum of difficulty, in terms of both time and cost. Sustainable transport has become a key focus, with governments and organizations promoting eco-friendly solutions to reduce carbon emissions and traffic congestion.

- a) Determine the contribution of transportation sector towards country economic development.

(10 marks)

- b) Discuss the concept of Time Utility and Place Utility in transportation.

(10 marks)

Question 2

Government involvement is essential to provide reliable transport infrastructure such as roads, railways, ports, and airports, which are often too capital-intensive for private entities alone. In addition, governments establish laws and standards to ensure passenger safety, fair pricing, environmental protection, and efficient service delivery. By coordinating public and private sector participation, governments help create an integrated and sustainable transport system that supports economic development and public welfare.

- a) Identify FOUR (4) objectives of Ministry of Transport (MOT) Malaysia, in order to ensure the efficiency of public and private transportation operations in Malaysia.

(10 marks)

- b) Classify FOUR (4) functions Ministry of Transport (MOT) Malaysia.

(10 marks)

Question 3

Choosing an appropriate mode of passenger transport is an important decision that affects cost, time, comfort, safety, and overall travel efficiency. Different transport modes such as road, rail, air, and water offer varying advantages and limitations. Therefore, several factors must be carefully considered before selecting a suitable means of passenger transport.

Point out FIVE (5) factors to be considered before choosing passenger transport.

(20 marks)

Question 4

Transportation systems are linked with a wide range of environmental considerations at all geographical scales, from the global to the local. The nature of these environmental impacts is related to the transport modes themselves, their energy supply systems, their emissions and the infrastructures on which they operate. While consuming large quantities of energy, especially oil, vehicles also emit numerous pollutants such as carbon dioxide, nitrogen oxide, noise and transport infrastructures have damaged many ecological systems.

In a table, classify FIVE (5) sustainable energy that can be utilized as alternatives to fossil fuels in transportation.

(20 marks)

END OF EXAMINATION QUESTIONS PAPER

