



LOGISTICS OF MULTI-MODAL TRANSPORT

INTRODUCTORY REMARKS

This year saw a high number of passes for this subject. Most candidates showed a reasonable level of understanding across the board. The usage of examples and illustrations was quite satisfactory. Some excellent structures and logical flows in candidates' answers were seen.

1. You need to transport a pallet of wine from Genoa, in Italy, to Felixstowe, in the UK. State the advantages and disadvantages of using each of the four modes of transport to transport your wine.

This was not a popular question among candidates but some managed to score high marks. Candidates should consider the value of the consignment, the cost of the mode of transport and the need for speed. It was all about comparing advantages and disadvantages of using the four modes of transport.

Air: fast but expensive, needs road transport to/from airport, best suited to high-value consignment needed urgently.

Sea: slower than air but cheaper; less-than-container load (LCL) consignments will need consolidation, direct port-to-port short-sea transit.

Road: cheap, flexible, door-to-door; though needs sea crossing, suitable for pallet-sized load.

Rail: good for longer distances, but can be expensive for LCL traffic compared with road; cheaper but slower than air; better for bulk consignments.

2. A bill of lading has three key functions. Explain each function, giving details of its significance within the supply chain.

This was one of the most popular questions this year. The answer should involve the three functions that have been established in UK law by the Bill of Lading Act 1855 which was superseded by the Carriage of Goods by Sea Act 1924. Most answers were quite comprehensive and explained the importance of B/L.

The functions are as follows;

Receipt for goods: Covers both quantity, including identification, measurement, weight, and apparent quality through phrases 'apparent good order and condition', and 'said to contain'. Good answers included the risks involved in providing a clean Bill of Lading for damaged or incomplete goods.

Evidence of contract of carriage: The Bill of Lading is only evidence of the contract, not the contract itself. Contract could be a charter party or made by telephone, fax, letter or booking note.

Document of title, which allows:

- i. the holder to claim goods at port
- ii. the holder to transfer ownership of the goods, by endorsement, while the goods are in transit
- iii. security for payment.

3. Explain the importance of seaports within the multi-modal transport network and explain the significance of investing in technology and manpower when it comes to their future development.

A considerable number of candidates attempted this question and showed good knowledge and experience. About 90% of international trade involves sea transportation at some point and the seaport interface is an integral part of the supply chain.

In today's context, most hub ports need deep-water facilities in order to cater to ever-increasing ship sizes, especially container vessels.

In order to make the operation efficient and productive, ports/terminals need to employ skilled workers and the right technology such as equipment and IT usage ashore. Most candidates were conversant with the latest developments in the port sector and mentioned interesting examples for investment and developments taking place with global companies such as Hutchison Ports, DP World, APM Terminals. They also explained the shortcomings on the manpower and political front.

4. Explain the meanings of fixed and variable costs with examples. How does a logistics company manage its costs?

This was a popular question and some answers included well explained definitions and examples.

Definitions:

'Fixed costs are company expenses that are not dependent on the level of goods or services produced. They tend to be time-related, such as salaries or rents being paid per month, and are often referred to as overhead costs.'

'Variable costs are expenses that change in proportion to the activity of a business such as overtime, fuel expenses. Variable cost is the sum of marginal costs over all units produced.'

Also, candidates were expected to explain the strategies and tactics in controlling costs. Usually fixed cost cannot be reduced in the short term eg: If the office space is too much, it may involve giving notice to the landlord; however, even fixed costs can be reduced in the medium to long term.

As a measure of controlling variable costs; establishing service contracts with shipping companies etc, volume rebates, controlling overtime... would help.



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5. Explain in detail four of the following terms and their impact on multi-modal transportation:

- (a) WTO
- (b) UNCTAD
- (c) Hamburg Rules
- (d) UCP 600
- (e) NVOCC

This was a straightforward question. Candidates were expected to explain the following with their responsibility and functions.

WTO: World Trade Organisation; Established to get rid of barriers to international trade.

UNCTAD: United Nations Conference on Trade & Development. 'The purpose of UNCTAD is to promote international trade, particularly that of developing countries, with a view to accelerating economic development. UNCTAD is one of the principal instruments of UN for deliberation and negotiation in respect of international trade and international economic cooperation.'

Hamburg Rules: The Hamburg Rules are a set of rules governing the international shipment of goods, resulting from the United Nations International Convention on the Carriage of Goods by Sea adopted in Hamburg on 31 March 1978. The Convention was an attempt to form a uniform legal base for the transportation of goods on oceangoing ships.

UCP 600: UCP 600 is the latest revision of the Uniform Customs and Practice by the International Chamber of Commerce that governs the operation of letters of credit. UCP 600 came into effect in 2007.

NVOC: Non Vessel Owning Carrier. They carry goods on others' ships on their B/L.

6. Explain the difference between a round the world and hub and spoke routeing pattern and draw examples of each pattern on the world map provided. Describe how changes in trade have affected these routeing patterns.

Answers should define the two types of service and provide examples and a drawing. Factors in RTW decline: lines concentrated on specific service sectors to improve schedule reliability; difficult to make up times without missing out a port call; difficult to fill ships on some sectors; restricted to Panamax-size vessels; limited economies of scale.

From 2015 the widened Panama Canal, with larger locks, will be able to accept ships up to 15,000teu.

While this may address the economy of scale issue and ought to reduce congestion in the canal itself it won't solve the problem of schedule reliability or part loads on some sectors, so hub and spoke will probably remain dominant for the rest of the decade. There can be other scenarios too.

This was not a very popular question, but there were good answers explaining both concepts with appropriate examples.

7. Answer both parts:

(a) Explain, using examples, the Just in Time concept, its benefits and risks.

(b) Explain, using examples, Total Quality Management and its implementation in the logistics sector.

This was a popular question.

(i) Just in time (JIT) is a production strategy that strives to improve a business return on investment by reducing inventory and associated carrying costs of raw materials etc. The main benefit of JIT is cost savings in terms of carrying stocks; but it comes with some risks attached such as factories going out of production due to delayed shipments etc.

(ii) TQM: Total Quality Management is an integrative philosophy of management for continuously improving the quality of products and processes. TQM is based on the premise that the quality of products and processes is the responsibility of everyone involved with the creation or consumption of the products or services which are offered by companies to meet or exceed customer expectations. Candidates were expected to explain how TQM could be implemented in the logistics sector.

8. You own a major chain of shops in your country selling refrigerators. Compare the advantages and disadvantages of owning or outsourcing parts of your supply chain, including equipment.

The answer should be tailored to the circumstances that apply in the candidates's own country or a country of their choice with country-specific references.

Advantages of in-house logistics: direct control of management and staff, direct communication, integration of inventory systems; disadvantages: not part of core business, possibly not cost-effective if insufficient business volume, need for specialist trained staff and tracking systems. Owning equipment such as containers and trucks may be cheaper in the long term with predictable costs, can be customised with own logos, but ties up capital and may not be fully employed if demand is seasonal.

Advantages of outsourcing to a third-party logistics provider: specialist expertise, global reach and therefore access to new markets, volume purchasing power; does not tie up capital; disadvantages: longer communications chains, dependent on outsourcer's subcontractors, cannot pick and choose elements of the complete 'package'. Leasing equipment allows flexibility and adjustment to market changes, avoids maintenance and repair overheads, but may be more expensive in the long term.