

### **Logistics & Multi-Modal Transport**

#### **General Comments**

#### **Overall Comments**

This the first time that Logistics and Multi-Modal Transport has been included in the November exams. While there were significantly fewer students taking the paper than at the May 2016 exam, the percentage of students who passed has improved.

Nevertheless around half of the students who sat the paper still failed to achieve a pass, and, disappointingly, a number failed by only a small margin. If these students had been able to show a greater breadth and depth of knowledge on some of the questions, they would have lifted their result above the pass mark. Students also need to be careful to ensure that what they write is directly relevant to the question. There are too many instances of overlong introductions with general background material, which if not addressing the specific topic of the question, contribute no marks, but take up valuable time for the student.

#### Question 1

Answer BOTH parts of the question,

You are an importer of consumer goods from Asia, with your business based in the east of the United States.

- (a) What different modes of transport and routes could you use to transport your goods from the supplier to your distribution centre in the USA?
- (b) Describe the advantages and disadvantages of each mode/route.

Describe, with examples, the different elements which may be included in a door to door price quote by a multi modal transport operator, with sea transport as the main leg.

Students were expected to show a good understanding of the following options under part (a):

- All water services via both Suez and Panama
- Intermodal (sea/rail) via a North America west coast port
- Air freight

Students should also mention the different North American hub ports which could be used. A map was not specifically asked for, but would certainly add value to the answer.

A number of students failed to cover all the available routes, or lacked the required detail

In Part (b), students were expected to discuss cost, transit times, reliability and any other relevant service factors for all the routes covered. Most understood the difference between air freight and the sea routes, but a number did not properly explain the differences between intermodal and all water routes. The fact that the transit time of the Suez vs Panama routes differ, according to where in Asia the cargo originates from was hardly commented on, and only a couple of students mentioned the significant impact of the



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new Panama Canal locks which opened in June 2016.

#### **Question 2**

Answer BOTH parts of the question

- (a) Discuss the advantages and disadvantages of buying or leasing containers for a multi modal operator. .
- (b) The cost of repositioning empty containers has an impact on the profitability of a multi-modal container operator. Discuss how an operator can reduce or avoid these costs.

Most students attempted this question, and although part (a) was reasonably well answered, many were unable to answer part (b) to the same quality.

- (a) The flexibility of operation which is obtained from leasing as compared with the long run cheaper cost of owning was generally understood and explained, though some answers struggled to distinguish the financial aspects of owning and leasing.
  What was surprising was that several students thought that if you leased containers, you avoided the need to operate systems to track and control the containers, which is certainly not true
- (b) Students were expected to describe a number of different methods to avoid/reduce costs, covering both operational actions (using lease agreements, on/off hire, one way boxes, cabotage etc.) and commercial solutions (pricing to obtain cargo to move surplus boxes, persuading shippers to use a different container types)

#### **Question 3**

What are the principal components of a multimodal transport system? Distinguish between 'physical', 'human resources' and 'data management' components, and using examples to support your answer, explain how an efficient system contributes to the overall effectiveness of a supply chain.

The first part of the question should cover

- physical assets such as means of transport ships/planes/trains/road transport etc., means of unitisation – containers, pallets, modal transfer – ports, ICDs, cranes fork lifts etc., and means of storage – warehouses + handling/storage equipment
- human resources well qualified and trained operations staff (including vessel crews), and office staff (planning, management etc.)
- data management systems to control through movement of goods (documentation, operations, statutory requirements), global systems (value of internet, cloud data), planning systems, decision making tools, e-commerce etc.

Students found the second part of the question particularly challenging. There was not one single 'right' answer to this part. An effective supply chain should provide goods at the right place at the right time at the right cost, therefore the answer needed to show **how** different components can ensure that a supply chain has the required service features (speed, frequency, reliability), excellent visibility of the goods in



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transit, and of course an acceptable cost. There are many different ways to illustrate this, but few students gave an explanation of the link between these components, and the quality of the supply chain.

#### **Question 4**

Explain the three main functions of a bill of lading, with specific reference to how these functions apply at the different stages of a through transport movement.

Students were expected to be able to explain in detail the three functions:

- Receipt for the goods
- Evidence of a contract of carriage
- Document of title

Most students knew the three functions, though some explanations were too brief. There was some confusion between a document of title (which applies to all B/Ls) and a negotiable B/L (which depends on the B/L being made out 'to order').

The specific applications of the functions were not well described, there was no single right answers, but examples could include:

- Receipt for goods provides evidence of quantity of goods, and any damage/deficiencies important for the commercial transaction, and as evidence in case of claim for loss/damage after delivery to consignee
- Evidence of contract of carriage ensures correct contract details e.g. place of receipt/delivery to
  ensure goods are delivered correctly, resolving disputes between shipper and carrier; clear
  statement of responsibility of both parties throughout the through transport movement
- Document of title to enable delivery to be given to the correct party; if also negotiable document, it enables title to the goods to be sold at any time during through transport by endorsing the B/L.



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#### **Question 5**

Answer ALL parts of the question.

- a) What are the purpose and the role of INCOTERMS?
- b) Explain the difference between E, F, C and D terms, using an example from each group to support your answers.
- c) For each chosen example, explain the division of costs and when property and risk pass between the seller and the buyer.

Purpose and role of INCOTERMS needed to be explained in the context of a contract of sale, together with the background to INCOTERMS, and their development by ICC.

The main distinction between the four types of terms needed to be described:

- E term (ex works), where the seller makes the goods available at its factory or premises
- F terms, where the seller must deliver the goods to a carrier named by the buyer
- C terms, where the seller has to arrange the carriage to a named destination, but without bearing the risk for loss or damage after dispatch/shipment
- D terms, where the seller bears all the costs and risks needed to deliver the goods to the country of destination

These descriptions should be supplemented with a detailed description of a selected INCOTERM in each category. Some students used diagrams to supplement their descriptions of the responsibility for cost, and for the passing of property and risk. As long as these are legible and clearly marked these can help to demonstrate that the student has a correct understanding of each chosen INCOTERM.



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#### Question 6

Explain in detail FOUR of the following terms and their importance to multi-modal transport:

- i. IMDG Code
- ii. Rotterdam Rules
- iii. WTO
- iv. Letter of Credit
- v. NVOCC
- vi. COTIF and CIM

Another popular question with some good answers. The following details should be covered for each of the four chosen terms:

#### (i) IMDG Code

- Produced by IMO, and applied by law to all states which are signatories to SOLAS
- Provides a grouping/classification of all dangerous goods, based on their hazard (9 classes)
- Defines packaging, labelling and documentation requirements
- Sets out the principles of where cargo of different hazards may be stowed on ships
- Provides advice on emergency response

#### (ii) Rotterdam Rules (RR)

- Description of RR as a cargo liability convention (relation to Hague/Hague Visby/Hamburg Rules)
- Why RR Rules were developed
- Key changes from previous conventions
- When adopted current situation re: ratification/entry into force
- Why the RR are more suited to multi modal transport

#### (iii) WTO

- Intergovernmental organisation to facilitate and develop trade
- Based in Geneva (established 1995)
- Supports and oversees international trade agreements
- Provides a forum for negotiations on trade agreements
- Handles disputes between countries over trade (e.g. tariffs etc.)
- Provides support and technical assistance for developing countries
- Publishes trade statistics
- Importance in developing trade which can utilise intermodal transport services

#### (iv) Letter of Credit

- An agreement between two parties which guarantees that payment will be made against the lodging of specified documents
- Purpose is to facilitate international trade; gives assurance that the seller will be paid, and the



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buyer gets the goods (the answer should provide a brief explanation of mechanism)

- Types of LCs confirmed, irrevocable etc.
- Role of UCP 600

#### (v) NVOCC

- Definition what is stands for/means
- Distinguish NVOCC vs ship operator and vs freight forwarder
- Overview of services offered by NVOCC (particular focus on value added services)
- Why are NVOCCs important in multi modal transport (supply chain managements etc.)
- Examples of NVOCCs

#### (vi) COTIF and CIM

- State convention names in full relationship of CIM to COTIF, historic development, when they entered into force
- What journeys are covered relevance to multi modal transport
- Requirement for consignment note key details
- Main liabilities and exclusions



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#### **Question 7**

Define a 'just in time' supply chain. Describe in detail the key service elements which a multi-modal carrier must provide to a 'just in time' client, explaining why they are important. What are the risks to the carrier and to the customer in this approach? Use examples to support your answer.

'Just in time' is a central concept in multi modal supply chains. The definition of 'just in time' needs to explain the business philosophy behind it, and not just to state that it means getting goods to their destination at the last possible moment.

The description of the key service elements should not just cover the physical components of the service, but more importantly what makes the service effective for a 'JIT' client, covering such issues as

- Door to Door transit time
- Frequency
- Reliability
- Speed
- Transparency of information e.g. on line enquiries on shipments, exception reports on delays
- Expertise to support client with supply chain issues, responsiveness to delays, availability of alternatives

There were a number of different risks to customer and carrier which could be described in the second part of the question, for example

#### For the customer:

- Running out of stock loss of profit
- loss of reputation, therefore loss of ongoing business
- additional costs in obtaining emergency supplies
- Closure of a factory/production line

#### For the carrier

- Main risk is loss of reputation/future business
- May need to make some ex gratia contribution to costs of delay (remembering that the carrier is not liable for delays under Hague/Hague Visby Rules)



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#### **Question 8**

You are a shipper of machinery, based several hundred kilometres from a deep sea port, with access to road, rail and short sea feeder services to the deep sea port.

Describe the advantages and disadvantages of using each of these three modes, considering economic, environmental and service-related factors. Use examples to support your answer.

The following factors should be considered against each of the three modes

- Cost
- Impact on Transit Time (including connectivity with deep sea carrier at port)
- Reliability (including effect of congestion)
- Capacity availability (vehicles, drivers etc.)
- Environmental impact (e.g. carbon footprint, pollution)
- Restrictions for various cargo types (e.g. heavy/out of gauge/hazardous cargo)