



PENINSULA
COLLEGE
GEORGETOWN

FINAL SEMESTER EXAMINATION
(in compliance with MQA's requirement)

Programme	:	BA (HONS) MARITIME BUSINESS AND LOGISTICS
Academic year	:	2022/23
Stage	:	2
Course	:	INTERNATIONAL LOGISTICS & SUPPLY CHAIN OPERATIONS
Course Code	:	MAL2016
Time Allowed	:	3 HOURS

INSTRUCTIONS TO CANDIDATES:

1. Please read the instructions given in the question paper **CAREFULLY**.
2. This assessment consists of **TWO (2)** sections.
3. Answer **ALL** questions in **section A** and **ALL** questions in **section B**.
4. Answers to the questions are to be written into the examination booklet.
5. Electronic dictionaries, lecture notes, files or any unauthorised materials except writing equipment are strictly prohibited.

This question paper must be submitted along with all used and/or unused rough papers and/ or graph papers (if any). Candidates are **NOT ALLOWED** to take any examination papers out of the examination hall.

(This booklet contains 3 printed pages including this page)

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE ALLOWED TO DO SO

WARNING:

The Examination Board of Peninsula College Georgetown regards cheating as a very serious offence and will not hesitate to mete out the appropriate punitive actions according to the severity of the offence committed, and in the accordance with the clauses stipulated in the Students' Handbook, up to and including expulsion from Peninsula College Georgetown.

For examiner's use only

QUESTION NO.	MARKS
1	/ 25
2	/ 25
3	/ 25
4	/ 25
Total	/ 100

SECTION A

[25 MARKS]

CASE STUDY: KEEPING TRACK OF THE FOOD JOURNEY

The difficulty in keeping track of products in a complex food chain is highlighted repeatedly in several notable cases. A central issue in the spread of the E. Coli outbreak in 2018 was the traceability of the lettuce which had been contaminated through irrigation systems. Finding the root of the problem was challenging because much of the contaminated finished lettuce products contained romaine sourced from multiple sources. Additionally, most records collected during the investigation were handwritten.

This poses a serious challenge for traceability efforts; businesses are urged to explore modern approaches to standardised record-keeping and the use of labels on product packaging to improve traceability. Alarming, 90% of all global food companies are small medium enterprises (SMEs), and most do not follow international standards. The vast majority use paper-based forms to run their quality systems.

Elements of all food audits cover food safety, food standards and brand integrity, these basics should be openly shared, while standards relating to individual brand integrity, such as product requirements can remain competitive matters. This would mean we can all assess the risks inherent in any food system.

There is currently no uniform regulatory system in the food industry. For instance, the British Retail Consortium (BRC) standards are the dominant scheme in the UK, while other schemes include Safe Quality Food (SQF) and the International Featured Standard (IFS). These schemes are being benchmarked by the industry's self-appointed Global Food Safety Initiative (GFSI) – an umbrella body backed by seven major international retailers, including Tesco. While GFSI is building momentum, many food assurance schemes such as the International Organisation for Standardisation (ISO) remain outside of the regulatory body.

Independent third-party audit can help eliminate the need for individual customer audits, reducing the audit burden and allowing organisations to refocus on monitoring and continuous systems improvements.

The third-party audits of the future will be more user-friendly and forensic. For instance, Google-style 'audit glasses', 'audit-bots', and drones which can observe farming and food quality operations remotely, will be used. Potentially the most game-changing technology in this area is blockchain. Blockchain allows multiple stakeholders to securely share access to the same information, through a distributed ledger using independent computers to record and share transactions in their electronic ledgers.

Digital Ledger Technology (DLT) will transform the way data is handled and how companies share food safety and quality information in the very near future. This technology has the power and potential to revolutionise food safety and quality if data is clean and validated.

Even with technology taking quality control to new levels, relationships will remain key to managing and maintaining a successful supply chain. A close working relationship and trust is critical to attaining exceptional quality performance within any supply chain. Nurturing long-term supplier relationships is fundamental to business success.

END OF CASE STUDY

Adapted from: Keeping track of the food journey, A., Dimas, (2018), BizClick Media, United Kingdom.

Answer **ALL** questions on the separate sheet provided.

- 1 a) Discuss the challenges faced by manufacturers in the global food supply chain. Provide relevant examples to support your answer. (10 marks)
 - b) Analyse the approaches that can be implemented to improve the global food supply chain. Support your answer with relevant examples from the case. (15 marks)
- [Total: 25 marks]

SECTION B

Answer **ALL** questions on the separate sheet provided.

2. a) Critically evaluate the elements of Just-In-Time (JIT) production that can be implemented by a fast-moving consumer goods (FMCG) company to reduce the amount of inventory and wastage throughout the supply chain. Provide relevant examples to support your answer. (15 marks)
 - b) Explain **FIVE (5)** differences between traditional supply chain and closed-loop supply chain. (10 marks)
- [Total: 25 marks]
3. a) As the logistics manager of automated packaging system, analyse **FIVE (5)** approaches to reduce risk(s) in this project. (10 marks)
 - b) Enterprise Resource Planning (ERP) system has been widely adopted by many manufacturing firms. Using examples, provide the impact of this system. (15 marks)
- [Total: 25 marks]
4. a) MAERSK logistics encountered bottleneck in meeting order fulfilment ever since the company adopted the digitalised supply chain system. Based on the Theory of Constraints, propose **FIVE (5)** implementation steps to resolve the bottleneck stated. (15 marks)
 - b) Explain **FIVE (5)** objectives of quick response. Support your answer with relevant examples. (10 marks)
- [Total: 25 marks]

- END OF QUESTIONS -