



PAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF COMMERCE, HUMAN SCIENCES, AND EDUCATION

DEPARTMENT OF MARKETING, LOGISTICS AND SPORT MANAGEMENT

QUALIFICATION: BACHELOR OF LOGISTICS AND SUPPLY CHAIN MANAGEMENT BACHELOR OF PROCUREMENT AND SUPPLY CHAIN MANAGEMENT	
QUALIFICATION CODE: 07 BLSC 07 BPSM	LEVEL: 7
COURSE CODE: GSC711S	COURSE NAME: GLOBAL LOGISTICS AND SUPPLY CHAIN MANAGEMENT
SESSION: JUNE 2025	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER(S)	MS. E JESAYA (FM & PM) MR. P SHIFETA (EF) MS. E ELAGO (PM)
MODERATOR:	MS. T A SHIKESHO

INSTRUCTIONS
<ol style="list-style-type: none">1. Answer all questions.2. Read all the questions carefully before answering.3. Make sure your name and surname, question number and the date appears on the answer script.4. Please ensure that your writing is legible, neat and presentable.

THIS QUESTION PAPER CONSISTS OF 5 PAGES (Including this front page)

SECTION A: MULTIPLE CHOICE AND TRUE/FALSE QUESTIONS

40 MARKS

QUESTION 1: MULTIPLE CHOICE

20 MARKS

There are 10 Multiple-choice questions with several possible choices each. Choose the best possible answer, for example, 1A. Each question is equivalent to 2 marks.

- 1.1. What is the primary goal of routing and scheduling optimisation in transportation?
 - a) Maximise employee satisfaction
 - b) Increase the number of vehicles
 - c) Reduce total distribution costs
 - d) Eliminate customer orders

- 1.2. In the context of routing, what does a node represent?
 - a) The distance between points
 - b) A product type
 - c) A pick-up or delivery location
 - d) A transportation mode

- 1.3. Which of the following is a key benefit of applying the SCOR model to a supply chain?
 - a) It provides automatic optimisation solutions
 - b) It replaces all physical supply chain operations
 - c) It standardises processes for benchmarking and best practices
 - d) It eliminates the need for suppliers

- 1.4. What is the primary function of the Internet of Things (IoT) in supply chain operations?
 - a) Printing digital twins
 - b) Enhancing manual data entry
 - c) Enabling smart maintenance and logistics networks
 - d) Replacing customer service agents

- 1.5. What is the main objective of layout planning in a facility?
 - a) Increase the number of machines
 - b) Minimise communication between workers
 - c) Optimise the physical arrangement of resources
 - d) Increase office size

- 1.6. Which layout type is best suited for producing large items like airplanes or wind turbines?

- a) Product flow layout
 - b) Process flow layout
 - c) Cell-based layout
 - d) Fixed position layout
- 1.7. What is the primary objective of supply chain design?
- a) Minimising employee turnover
 - b) Avoiding all supplier relationships
 - c) Increasing the number of distribution centers
 - d) Matching supply chain capabilities with strategic goals
- 1.8. In the context of facility location planning, what does the “warehouse location problem (WLP)” involve?
- a) Selecting retail partners
 - b) Deciding on facility placement and supply routes
 - c) Choosing warehouse staff
 - d) Buying equipment for warehousing
- 1.9. What is the main benefit of a *Make-to-Stock (MTS)* production strategy?
- a) Full customisation for each customer
 - b) Low unit costs and high capacity utilisation
 - c) Minimal inventory levels
 - d) Long production lead times
- 1.10. Which strategy is most appropriate when customers are involved from the very beginning of the product design?
- a) Make-to-Stock (MTS)
 - b) Engineer-to-Order (ETO)
 - c) Assemble-to-Order (ATO)
 - d) Distribute-to-Order (DTO)

QUESTION 2: TRUE / FALSE

20 MARKS

State whether the following statements are true or false.

2x10 = 20 MARKS

- 2.1. Routing is the process of organising deliveries based on traffic patterns and client availability.
- 2.2. The Traveling Salesman Problem (TSP) involves visiting each node only once and returning to the starting point.

- 2.3. The SCOR model includes five main processes: Plan, Source, Make, Deliver, and Enable.
- 2.4. Artificial Intelligence in supply chain management is limited to data entry tasks.
- 2.5. Layout planning is only done when a new facility is built.
- 2.6. A poor layout can increase costs and reduce communication effectiveness.
- 2.7. Direct shipping with milk runs involves deliveries to multiple buyer locations on a single trip.
- 2.8. Effective capacity is always equal to design capacity in factory operations.
- 2.9. The push strategy responds directly to customer orders.
- 2.10. Modularisation allows for quicker time-to-market and product customisation.

QUESTION 3: SHORT CASE STUDY

22 MARKS

Process flow structures provide unique advantages and are suited to different manufacturing contexts within the supply chain. The selection of an appropriate process flow structure depends on factors such as product variety, production volume, demand variability, and flexibility requirements. Carefully examine the case studies provided and identify the process flow structure(s) applied. Support your answer with a justification based on the characteristics of each structure.

- a) A furniture maker produces one-of-a-kind tables and chairs based on customer specifications. Each item follows a unique process through different workstations.
- b) A bakery produces large quantities of bread in lots every morning, which are then packaged and distributed.
- c) A factory produces cars in high volume using a conveyor belt system where each workstation performs a specific task like fitting the engine or doors.
- d) A refinery operates 24/7, converting crude oil into finished products with no interruption in the production process.
- e) A workshop builds machine parts to order, each requiring different machining and processing steps based on customer requirements.
- f) A pharmaceutical company produces medication in clearly defined lots that follow the same steps and processing times.
- g) A tech company produces mobile phones on a production line with fixed stations for inserting screens, batteries, and software installation.
- h) Chemicals are processed on an ongoing basis in a 24/7 plant with minimal variation in product output.
- i) A company receives varied orders for electronic circuits. Each order is processed differently, depending on the client's specifications.
- j) A factory produces different flavors of ice cream in separate groups before packaging and freezing them.

- k) Electricity is generated in a power plant that operates non-stop throughout the year. The process is highly automated, and the output, electricity, remains consistent with little variation or customisation.

QUESTION 4

20 MARKS

Critically evaluate five key benefits and five major challenges associated with the implementation of digital technologies in Supply Chain Operations Management (SCOM).

QUESTION 5

18 MARKS

Lysons and Farrington (2012) propose a structured nine-step approach to guide the supplier development process. Identify and explain these steps, and describe how each contributes to effective supplier management.

SECTION B TOTAL MARKS: 60

TOTAL MARKS: 100

THE END