
POST GRADUATE UNIVERSITY EXAMINATIONS
SCHOOL OF MANAGEMENT AND LEADERSHIP
DEGREE OF DOCTOR OF PHILOSOPHY IN BUSINESS
ADMINISTRATION

DLS 903: ADVANCED LOGISTICS AND SUPPLY CHAIN MANAGEMENT
DATE: 4TH AUGUST 2026

DURATION: 3 HOURS

MAXIMUM MARKS: 50

INSTRUCTIONS:

1. Write your registration number on the answer booklet.
2. **DO NOT** write on this question paper.
3. This paper contains **FOUR (4)** questions.
4. Question **ONE** is compulsory.
5. Answer any other **TWO** questions.
6. Question **ONE** carries **30 MARKS** and the rest carry **10 MARKS** each.
7. Write all your answers in the Examination answer booklet provided

QUESTION ONE

Read the Case Study below carefully and answer the questions that follow:

HUMANITARIAN LOGISTICS CRISES

The world is experiencing unprecedented humanitarian logistics crises, including those associated with armed conflict, forced migration and climate change disasters. These crises are occurring with increasing frequency, placing unprecedented demands on humanitarian logistics systems, which must rapidly scale, operate sustainably and accommodate increasingly complex requirements. The extant literature indicates that women's leadership and involvement in these settings are an overlooked yet indispensable resource for building resilient and inclusive supply chains.

Recent studies have highlighted the overlap between gender equality, environmental sustainability, community-driven initiatives and climate resilience and adaptation. For example, sustainable humanitarian supply chains improve operational efficiency and environmental responsibility, aligning logistical performance with sustainability and well-being (Additionally, humanitarian sector organizations, such as the International Committee of the Red Cross, are now considering incorporating sustainability into their strategies and practices, indicating a positive trend towards greener logistics. Yet, systemic inequities endure. History shows that crises heighten gender inequalities: women bear disproportionate care responsibilities, including unpaid care work, compared to men, as they face fewer economic and leadership opportunities.

Critical gender-specific needs, such as menstrual hygiene management (MHM) and reproductive health, are often overlooked in logistics planning. At the same time, structural barriers such as patriarchal constraints, exclusion from leadership roles and increased exposure to gender-based violence (GBV) impede women's ongoing participation in humanitarian efforts. So far, academic discourse has essentially depicted women as beneficiaries of aid rather than as agents of resilience. Existing reviews often focus on specific contexts, such as post-disaster recovery or health service delivery rather than adopting a holistic, cross-contextual perspective. A

comprehensive synthesis across different crisis contexts (e.g., refugee camps, conflict zones, natural disasters) is urgently required to examine the roles women play and the challenges they face in supporting resilience and implementing gender-responsive approaches to ensure more meaningful inclusion of women in humanitarian supply chains. Explain the role of Block chain and Artificial Intelligence in Logistics

Required:

- a) In reference to the case, these crises are occurring with increasing frequency, placing unprecedented demands on humanitarian logistics. Evaluate the inefficiencies have manifested in these crises. **(10 Marks)**
- b) From the case study, despite the availability of modern logistics infrastructure and some digital platforms, women's leadership and involvement in these settings are overlooked. Analyze the reasons for low women leadership and involvement in logistics and supply chain leadership. **(10 Marks)**
- c) As organizations strive resources is apparent. Examine five reasons as to why technological resources are limited to survive in the current turbulent environment, the need for technological **(10 Marks)**

QUESTION TWO

You are newly appointed for integrated logistics management. As a consultant you know that the logistical process involves the materials flow from manufacturing to the consumer. You received an email from a client asking you to explain logistical operating arrangements and structures. In your report illustrate and assess the situation

- a) The widely used logistical operating structures to improve logistical performance. **(5 Marks)**
- b) Discuss and give examples how a firm can achieve competitive advantage through logistics operations. **(5 Marks)**

QUESTION THREE

- a) Logistics planning is a mandatory activity for the successful execution of the various supply chain activities. Explain the application of "logistics pipeline" in logistics planning. (5 marks)
- b) The logistical packaging has to play an important role of communication from place of shipping to the place of delivery. Explain the information that the logistical package should have to facilitate effective transportation and delivery of goods (5 marks)

QUESTION FOUR

A challenge of supply chain management is to integrate operations across multiple firms. In an effort to facilitate operations supply chain participants will benefit from joint planning and implementation of international logistics. With this statement in mind.

- a) Evaluate the performance measure in supply chain management. (5 Marks)
- b) Examine the strategies of managing international logistics with comparison to local logistics. (5 Marks)