

3304
2903/302
2922/302
OPERATIONS MANAGEMENT
November 2022
Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

BUSINESS EDUCATION SINGLE AND GROUP CERTIFICATE EXAMINATIONS
DIPLOMA IN SUPPLY CHAIN MANAGEMENT
DIPLOMA IN PROJECT MANAGEMENT

OPERATIONS MANAGEMENT

3 hours

INSTRUCTIONS TO CANDIDATES

This paper consists of SEVEN questions.
Answer any FIVE questions in the answer booklet provided.
All questions carry equal marks.
Maximum marks for each part of a question are as indicated.
Candidates should answer the questions in English.

This paper consists of 2 printed pages.

Candidates should check the question paper to ascertain that both pages are printed as indicated and that no questions are missing.

1. ✓ (a) Outline **four** characteristics of project processes. (8 marks)
(b) Explain **six** factors that may lead to failure of new product development. (12 marks)
2. (a) Highlight **four** differences between production planning and production control. (8 marks)
(b) Explain **six** potential areas of manufacturing waste that lean manufacturing should address. (12 marks)
3. (a) Outline **six** instances when product layout system may be suitable for a manufacturing firm. (12 marks)
(b) Flexible Manufacturing Systems (FMS) enables reduction in work- in- progress by automatically scheduling the production operations to suit component availability and demand. Highlight the bases of constraints to this system. (8 marks)
4. (a) Explain **six** benefits that may accrue to an organization by implementing a properly planned flow production method. (12 marks)
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(b) Spare parts for plant maintenance are stored in order to reduce the loss of production time due to machine breakdowns. Outline **four** factors to consider when deciding on what spare parts and how much to keep. (8 marks)
- ✓ 5. (a) The internet and information technology has brought changes in the delivery of services. Outline **five** such changes. (10 marks)
(b) Market research feasibility studies enables a business to acquire insights into her market and assess if there is a strong demand for a new product venture. Explain **five** elements of such feasibility studies. (10 marks)
6. (a) Outline **five** reasons why a firm would carry out shop floor inspection in its production process. (10 marks)
(b) Explain **five** ways in which challenges in maintenance operations may be solved. (10 marks)
7. ✓ (a) Outline **four** positive effects of adopting an appropriate plant layout on the manufacturing costs of a firm. (8 marks)
(b) Computer aided manufacturing is now a central element in many production systems. Explain **six** advantages of this manufacturing system. (12 marks)

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