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University Examinations 2023/2024

FOURTH YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF COMMERCE AND BACHELOR OF BUSINESS INFORMATION
TECHNOLOGY

BFB 3458: PRODUCTION AND OPERATIONS MANAGEMENT

DATE: APRIL 2024

TIME: 2 HOURS

INSTRUCTIONS: Answer question *one* and any other *two* questions

QUESTION ONE (30 MARKS)

- a) A new banana processing plant is to be established in Meru County. The location factors, factor rating and scores for two potential sites are shown in the table below. Which is the best location based on factor rating method? (10 Marks)

S/NO	Location Factor	Factor Rating	Rating	
			Location 1	Location 2
1.	Facility Utilization	12	6	8
2.	Volume of production per month	10	8	6
3.	Number of units per hour	8	6	4

4.	Land and Construction cost	8	4	5
5.	Employee preference	6	8	6

- b) Analyze the role of quality control to both the manufacturing firm and its stakeholders. (10 Marks)
- c) Explain the objectives of production planning and control (10 Marks)

QUESTION TWO (20 MARKS)

- a) Examine the components of operations planning and scheduling system (12 Marks)
- b) Describe the key steps involved in implementing quality control in an organization (8 Marks)

QUESTION THREE (20 MARKS)

Analyze the following production methods highlighting their main characteristics that distinguish them

- i. Job shop production (5 Marks)
- ii. Mass production (5 Marks)
- iii. Batch Production (5 Marks)
- iv. Continuous Production (5 Marks)

QUESTION FOUR (20 MARKS)

Mount Kenya milk processing plant is planning to expand into global market within Sub-Saharan region.

- i. Identify the challenges they are likely to face in the new frontier (5 Marks)
- ii. Enumerate key inputs that will be required to schedule production in the new market (5 Marks)
- iii. Analyze the key strategies that the company can adopt to compete effectively in the global market. (10 Marks)

QUESTION FIVE (20 MARKS)

- a) Examine the main benefits of ISO:9000 certifications to both manufacturing and service sector organization. (5 Marks)
- b) Define and explain the six steps of six sigma implementation (6 Marks)
- c) Capacity planning decisions an important aspect of production and operations management. Explain this statement. (9 Marks)