



NATIONAL OPEN UNIVERSITY OF NIGERIA
Plot 91, Cadastral Zone, Nnamdi Azikiwe Express Way, Jabi - Abuja
FACULTY OF MANAGEMENT SCIENCES
2024 1 EXAMINATION

Course Code: BUS 801

Credit Unit: 2

Course Title: Production and Operations Mgt.

Semester: First Semester

Time Allowed: 2 hours

Instruction: Attempt question ONE (30 marks) and any two questions 20 marks of your choice

QUESTION ONE

shows the fixed costs and variable costs of Nestle Nigeria in its attempt to site a new branch at the state capital. Three state capitals are being considered. Port-Harcourt, Rivers and Delta.

Fixed costs, /year	Port-Harcourt	Rivers	Delta
Salaries/management/staff	3,400,000	2,700,000	3,200,000
Depreciation	750,000	600,000	400,000
Insurance	250,000	225,000	210,000
Energy costs	310,000	275,000	290,000
Taxes	100,000	90,000	80,000
Total	4,810,000	3,890,000	4,180,000
Variable cost, /unit			
Raw materials	21.50	25.96	24.75
Labour	12.50	11.30	11.10
Packing	1.30	2.05	1.50
Transportation	0.30	1.10	0.95
Total	35.60	40.35	38.30

- a) Determine the break-even levels in terms of units produced at the given locations. 20marks
- b) Distinguish between uncertainty/risk and probabilities. 10marks

QUESTION TWO

- a) List the main justifications for keeping inventories and define the term. 10marks
- b) Describe the basic EOQ model and its assumptions and solve distinctive issues. 10marks

QUESTION THREE

- c) Discuss the various types of production systems and their characteristics. 10marks
- d) Explain the concept of capacity planning. Discuss the factors that influence capacity decisions. 10marks

QUESTION FOUR

Write a short note on the following:

- i) Item cost
- ii) Ordering (or set up) costs
- iii) Carrying (or holding) cost
- iv) Cost of storage
- v) Costs of obsolescence, deterioration, and loss (20marks)