CMR
INSTITUTE OF
TECHNOLOGY, BENGALURU

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Internal Assesment Test - I

Sub:	Economics for Decision Making							Code:	**MBA103**
Date:		Duration:		Max Marks:	**50**	Sem:	**I**	Branch:	**MBA**

SET- I

		Marks	OBE CO	OBE RBT
	Part A - Answer Any Two Full Questions (2* 20 = 40 marks)			
1 (a)	**Define Managerial Economics and state any two responsibilities of a managerial economist.** Managerial Economics is the application of economic principles to managerial decision-making. Two responsibilities of a Managerial Economist: ● Demand forecasting ● Cost and profit analysis	[03]	CO2	L2
(b)	**Discuss Baumol's Sales Maximization Model and explain its relevance to business firms.** **Baumol's Sales Maximization Model** states that firms aim to maximize sales revenue rather than profit, subject to a minimum profit constraint. Managers prefer higher sales because their salary, prestige, and job security are linked to sales growth. **Baumol's Sales Maximization Model – Point-wise Explanation** ➢ Objective: Firms aim to maximize total sales revenue rather than profits. ➢ Profit Constraint: Sales are maximized subject to a minimum profit required to satisfy shareholders. ➢ Managerial Motivation: Managers focus on sales growth because it affects their salary, prestige, and job security. ➢ Implication: Firms may sacrifice some profits to achieve higher sales and market share. ➢ Equilibrium: Achieved at the output level where sales revenue is maximum, not profit. **Relevance to Business Firms:** The model is relevant for large modern firms where ownership and management are separate. It explains why firms focus on sales growth, market share, and brand expansion instead of only profit maximization.	[07]	CO1	L3
(c)	**Examine the elasticity of demand and types of elasticity of demand with suitable examples.** Elasticity of Demand measures how much quantity demanded responds to changes in price, income, or related goods.	[10]	CO1	L4

Types of Elasticity of Demand:

Price Elasticity – Response to price change
Elastic: Luxury goods
Inelastic: Salt, medicines
Income Elasticity – Response to income change
Positive: Cars
Negative: Inferior goods
Cross Elasticity – Response to price of related goods
Positive: Substitutes (tea–coffee)
Negative: Complements (car–petrol)
Zero: Unrelated goods

2 (a)	Define Law of demand and analyze the effect of income changes on demand for luxury goods.	[03]	CO2	L3

Law of Demand:
The law of demand states that, other things remaining constant, quantity demanded increases when price falls and decreases when price rises.

Effect of Income Changes on Luxury Goods:
Luxury goods have positive income elasticity of demand. When income increases, demand for luxury goods rises more than proportionately; when income falls, demand decreases sharply.

(b)	**What do you understand by the term demand forecasting? And How demand of a particular commodity can be forecasted?**	[07]	CO2	L3

Demand Forecasting
Demand forecasting is the process of estimating the future demand for a product over a specific period, using past data and analysis, to help business planning and decision-making.
Methods of Demand Forecasting for a Commodity:
Survey Method – Collecting information from consumers or experts.
Statistical Method – Using past sales data and trends.
Time Series Analysis – Studying trend, seasonal, and cyclical changes.
Regression Analysis – Measuring the relationship between demand and factors like price and income.
Market Experiment Method – Testing demand by changing price or promotion in selected markets.

(c)	**Why the Average cost curve is U shaped curve? Discuss with schedule and graph**	[10]	CO3	L4

Average Cost (AC) Curve is U-shaped due to economies and dis economies of scale.
Initially AC falls because fixed costs are spread over more output and efficiency increases.
Later AC rises due to managerial inefficiency and coordination problems.
Schedule (example):

Output	AC (₹)
1	100
2	70
3	50
4	40 (min)
5	45

Graph:
Output on X-axis and Average Cost on Y-axis gives a U-shaped AC curve.

3 (a) What do you mean by ISO Quant and ISO Costs. [03] CO2 L2

Iso-quant:
An **iso-quant** is a curve that shows different combinations of two inputs (like labor and capital) that produce the **same level of output**.

Isocost:
An **isocost** is a line that shows different combinations of inputs that can be purchased at the **same total cost**, given input prices.

(b) A company producing a single product and sells it at Rs. 10 per unit. Variable cost is Rs. 6 per unit and fixed cost is Rs. 40,000 per annum. Calculate (a) Break-even point, (b) BEP Sales. Evaluate how company will take decisions to maximize the profits. [07] CO3 L5

Selling price per unit = ₹10
Variable cost per unit = ₹6
Fixed cost = ₹40,000
Contribution per unit = SP − VC = 10 − 6 = ₹4

(a) Break-even Point (BEP in units)
BEP (units)=Fixed Cost/Contribution per unit
=40,000/4=10,000 units
=10,000 units
(b) BEP Sales (in ₹)
BEP Sales=BEP units×Selling price=10,000×10
=BEP units×Selling price=10,000×10=₹1,00,000

Decision to Maximize Profits:
To maximize profits, the company should:
Increase sales beyond 10,000 units, as profit starts after BEP
Reduce variable or fixed costs to raise contribution
Increase selling price if market conditions allow
Improve efficiency to increase output without increasing costs

(c) **Discuss economies of scale and dis economies of scale with examples.** [10] CO2 L4

Economies of Scale mean lower average cost as production increases due to efficiency.
Examples: use of modern machinery, managerial specialization, bulk buying, cheaper finance.

Dis economies of Scale mean higher average cost when a firm becomes too large.
Examples: poor coordination, managerial inefficiency, wastage of resources.

Part B - Compulsory (01*10=10 marks) – CASE STUDY

4 "Tomato Price Fluctuations and Farmer Response in India" In 2023, tomato prices increased from ₹40 to ₹200 per kg due to crop damage from heavy rains in Karnataka and Andhra Pradesh. In the short run, farmers could not increase supply instantly because agricultural production takes time, making tomato supply inelastic. Consumers reduced quantity but still bought tomatoes because it is an essential item, showing inelastic demand. After several weeks of high prices, farmers expanded cultivation for the next crop cycle. As a result, supply increased by 25% in the next season, making supply more elastic in the long run. Prices then reduced to normal levels. This case helps students understand time-lag in supply, elasticity, and seasonal price variation in India.

Questions

(a) **Why is tomato supply inelastic in the short run but elastic in the long run? And How does the Law of Demand apply when tomato prices rise sharply**? [5] CO3 L4

Short-Run Supply (Inelastic):
Farmers cannot increase production instantly.
Time-consuming process: sowing, growing, harvesting takes weeks/months.
Fixed resources: land, labor, and inputs cannot be increased immediately.
Quantity supplied responds little to price changes.

Long-Run Supply (Elastic):
Farmers can expand cultivation area or allocate more land to tomatoes.
Change cropping patterns to grow more tomatoes.
Use better seeds, fertilizers, and irrigation to increase yield.
Quantity supplied responds significantly to price changes over time.

(b) **What factors cause essential goods like tomatoes to have inelastic demand?** [5] CO2 L4

Factors causing essential goods like tomatoes to have inelastic demand:
Necessity: Tomatoes are needed for daily consumption, so people buy them even at higher prices.
Few substitutes: Limited alternatives make it hard to switch to other goods.
Small income share: The cost of tomatoes is a small portion of income, so price changes don't greatly affect demand.
Cannot be postponed: Consumption cannot be delayed without affecting daily meals.

Course Outcomes (COs)		PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4
CO1:	The student will understand the application of Economic Principles in Management decision-making.	1b,1c					1c			
CO2:	The student will earn the microeconomic concepts and apply them for the effective functioning of a Firm and Industry.	1a,2a,2b	3b		2b			1a		
CO3:	The student will be able to understand, assess, and forecast the demand.	2c,3b				3b				
CO4:	The student will apply the concepts of production and cost for optimization of production	4a,4b		4b						

Cognitive level	KEYWORDS
L1 - Remember	list, define, tell, describe, recite, recall, identify, show, label, tabulate, quote, name, who, when, where, etc.
L2 - Understand	describe, explain, paraphrase, restate, associate, contrast, summarize, differentiate interpret, discuss
L3 - Apply	calculate, predict, apply, solve, illustrate, use, demonstrate, determine, model, experiment, show, examine, modify
L4 - Analyze	classify, outline, break down, categorize, analyze, diagram, illustrate, infer, select
L5 - Evaluate	asses, decide, choose, rank, grade, test, measure, defend, recommend, convince, select, judge, support, conclude, argue, justify, compare, summarize, evaluate
L6 - Create	design, formulate, build, invent, create, compose, generate, derive, modify, develop, integrate

PO1–*Theoretical Knowledge;* PO2–*Foster Analytical and Critical Thinking Abilities for data-based decision making;*
PO3– *Develop Value Based Leadership;* PO4 –*Ability to Understand and communicate various business aspects to global;*
PO5 – *Ability to lead themselves and others in the achievement of organizational goals contributing effectively to a team environment;*
PSO1- *Comprehend Contemporary features of Business Management Science and its administration*
PSO2- *Analyze and interpret the dynamic situations for making Business Management strategies*
PSO3- *Handle responsibility with the ethical values for all actions undertaken by them*
PSO4- *Adapt and focus on achieving the organizational goal and objectives with complete zeal and commitment.*

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