Duration:2 hours   Marks: 80

Instructions: - All questions are Compulsory.
Use of Non-scientific calculators is allowed.

Q.No.1 Explain in brief *Any Five* of the following   5 x 4=20

1. Explain the concept of discounting principle with an example.
2. Calculate the discounting percentage rate for an amount of ₹1,00,000 to be received after four years and whose present value is ₹76289.5212
3. Explain the concept of risk and uncertainty.
4. Calculate the equilibrium price and quantity for a product which has a demand and supply function as $Q^d = 1500 - P$ and $Q^s = 300 + 4P$
5. Explain how nature of commodity affects price elasticity of demand.
6. What is demand forecasting? Briefly explain the levels at which it is undertaken.

Q.No.2 Explain in brief *Any six* of the following   6 x 4=24

1. Explain the second stage of law of returns to scale.
2. Briefly explain the term long run production function.
3. Define law of returns to scale. State its assumptions
4. Calculate the weighted average cost if a firm producing three products A,B and C in an equal ratio have variable costs per unit as ₹10, ₹12 and ₹15 respectively, its total fixed cost is ₹1500 and total output is 150 units.
5. Briefly explain the concepts of Economic and Accounting costs.
6. If a firm produces 300 units of a commodity at a total variable cost of ₹2400 and average fixed cost of ₹10, calculate its profits if its total revenue amounts to ₹7,000.
7. Write a note on Economies of Scope.
8. Write a note on Costs of joint products.

Q.No.3 12

A.

1) Nestle Ltd determines that the demand curve for its premium chocolate pack is
P = 2000 – 50Q, where P is the price of the chocolate and Q is the number of chocolate packs sold per month.
a) What is the Ep value if price is Rs 500?
d) What is the Ep value if 35 units are sold?
c) At Ep = - 0.5 how many units will be sold?

2) If for a product the arc advertizing elasticity is E_A **= 0.6364** and sales volume is 5000 units, calculate the new sales if its advertizing expenditure is increased from ₹30,000 to ₹40,000.

Or

B. The production and marketing teams at *Nike* are trying to analyse the change in demand for their sports shoes and seek your advice. The company provides its data which states that the demand for their shoes has a price, income and advertising elasticity of around (- 0.8), (1.8) and (1.5) respectively. *Nike* is planning to increase the price of its product from ₹1,800 to ₹2,070. However, its closest competitor *Adidas* using an aggressive pricing strategy has decided to reduce its price for a similar product from ₹2,300 to ₹ 2024. *Nike* has a cross elasticity of (0.7) with *Adidas* for this product. *Nike's* data further states that the income level and advertising expenditure would increase by 3% and 5% respectively. If the current quantity sold by *Nike* is one thousand units, calculate expected **% change** in revenue and advise if *Nikes's* decision to increase price is correct. (Use percentage method)

Q.No.4 12
A. Explain the law of variable proportions with diagram.
Or
B. Explain the term production and various factors affecting production.

Q.No.5 12
A. If AC and AVC for Q = 5 is ₹130 and ₹30 respectively then calculate TFC, TVC,TC and AFC from the following data:

Q (units)	1	2	3	4	5	6	7	8	9	10
MC (Rs)	50	30	25	24	21	30	45	55	80	90

Or

B. If AVC for Q = 800 is ₹31.25 then calculate TFC, TVC, AFC, AVC and MC from the following data:

Q (units)	100	200	300	400	500	600	700	800
TC (Rs)	15,000	16,000	16,500	18,000	20,000	23,000	27,000	33,000

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