VPM's
DR VN BRIMS, Thane
Programme: MMS (2024-26)
First Semester Regular Examination January 2025

Course Name:	Managerial Economics	**Course Code**	C103
Roll No.		**Marks**	30
Total No. of Questions	3	**Duration**	1 Hour
Total No. of printed pages	2	**Date**	03/01/2025

Course Outcome Statements:

Instructions: - Scientific and Commerce Calculator is allowed.

Q. No 1 (All Questions are Compulsory)

Q. No.		Questions	Marks	BL	CO
Q. 1		Case/Case-let Study / Answer the following			
		PortWave Logistics, located in the bustling coastal city of Durban, South Africa, operates as major merchant port handling goods across the Indian Ocean. Situated strategically near key trade routes, PortWave serves as a gateway for imports and exports in southern Africa. The company incurs fixed costs including infrastructure maintenance, security, and administrative expenses, which remain unchanged regardless of the volume of cargo handled. Variable costs, on the other hand, fluctuate based on the amount of cargo processed, such as labour, fuel, and variable overheads. Efficient cost management is crucial for the port's profitability, especially in a competitive market where price sensitivity and operational efficiency are key to success. To ensure sustainability and profitability, the port must carefully analyse its cost structure in the short run. The finance team of PortWave collected the following data on VC, FC, and revenues (all figures in $'000): The Price = MR = AR is 65	**10**	**Level 5**	**CO5**

Output (Units)	VC	FC	TC
0	0	40	40
1	20	40	60
2	30	40	70
3	36	40	76
4	72	40	112
5	150	40	190

Determine the output level where ATC is minimized
Also **Decide** the optimum output level where Total Profit is maximized.
[Note: Prepare table for AVC, AFC, ATC, MC, TR and Profit columns. Draw graph only showing MR and MC curves highlighting optimum quantity level

VC = Variable Cost, FC = Fixed Cost, TC = Total cost, AVC = Average Variable Cost, AFC = Average Fixed Cost, ATC = Average Total Cost, MC = Marginal Cost, MR = Marginal Revenue, AR = Average Revenue, TR = Total Revenue

<table>
<tr><th>Q. 2</th><th></th><th>Answer the following</th><th></th><th></th><th></th></tr>
<tr><td rowspan="2">a</td><td>i</td><td>Examine the impact of following 2 scenarios on the Equilibrium Price with the help of diagrams assuming parallel shifts across both the curves (Note: no need for values on axes of graphs)

<table><tr><th>No.</th><th>Demand Curve</th><th>Supply Curve</th></tr><tr><td>i)</td><td>Shifts Right</td><td>Shifts Right</td></tr><tr><td>ii)</td><td>Shifts Left</td><td>Shifts Right</td></tr></table></td><td>5</td><td>Level 4</td><td>CO4</td></tr>
<tr><td>ii</td><td>Construct Total Product (TP), Average Product (AP) and Marginal Product (MP) Curves using the following data:<table><tr><th>Input</th><th>TP</th></tr><tr><td>0</td><td>0</td></tr><tr><td>1</td><td>5</td></tr><tr><td>2</td><td>15</td></tr><tr><td>3</td><td>35</td></tr><tr><td>4</td><td>40</td></tr><tr><td>5</td><td>40</td></tr><tr><td>6</td><td>35</td></tr></table></td><td>5</td><td>Level 3</td><td>CO3</td></tr>
<tr><td colspan="6">Or</td></tr>
<tr><td rowspan="2">b</td><td>i.</td><td>Build Marginal Utility (MU) and Total Utility (TU) curves based on the following data:<table><tr><th>Units</th><th>MU</th></tr><tr><td>1st</td><td>30</td></tr><tr><td>2nd</td><td>25</td></tr><tr><td>3rd</td><td>15</td></tr><tr><td>4th</td><td>0</td></tr><tr><td>5th</td><td>-5</td></tr><tr><td>6th</td><td>-15</td></tr></table></td><td>5</td><td>Level 4</td><td>CO4</td></tr>
<tr><td>ii</td><td>Solve and identify the types of price elasticity of demand based on the following 2 scenarios:
i) You manage a fine dining restaurant and decide to increase the price of your signature pasta dish from Rs.300 to Rs.350. After the price increase, the quantity demanded decreases from 150 plates to 130 plates.
ii) You own a clothing store and decide to reduce the price of your popular branded jackets from Rs.2,500 to Rs.2,000. Following the price drop, the quantity demanded increases from 50 jackets to 80 jackets.</td><td>5</td><td>Level 3</td><td>CO3</td></tr>
<tr><th>Q. 3</th><th></th><th>Answer the following</th><th></th><th></th><th></th></tr>
<tr><td rowspan="2">a</td><td>i</td><td>Outline the concept of Economies of Scale and Diseconomies of Scale using the graph of Long Run Average Cost</td><td>5</td><td>Level 2</td><td>CO2</td></tr>
<tr><td>ii</td><td>Recall the meaning of a) Dumping b) Isoquant</td><td>5</td><td>Level 1</td><td>CO1</td></tr>
<tr><td colspan="6">Or</td></tr>
<tr><td rowspan="2">b</td><td>i.</td><td>Explain briefly Profit Maximization Model and Managerial Discretionary Theory of Williamson</td><td>5</td><td>Level 2</td><td>CO2</td></tr>
<tr><td>ii</td><td>What are the key features of an Oligopoly market and a Monopolistic Competition market</td><td>5</td><td>Level 1</td><td>CO1</td></tr>
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