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| **C:\Users\ADMIN\Desktop\j.png** | **JAIPURIA INSTITUE OF MANAGEMENT, INDORE**  Post Graduate Diploma in Management |
| **Course Title: Managerial Economics, (Course Code: 40401)**  **Improvement Examination, Term -I (November 2024)** | |
| **Time Duration: 2 Hours Total Marks: 40** | |

***General Instructions*:**

1. *Answer the questions as directed. The break-up of the marks is given wherever necessary.*
2. *Marks against each question are indicated to its right.*
3. *Answer all the questions of a ‘Section/Question’ in one place in continuation.*
4. *Answers should be brief and to the point.*
5. *Do not write on the question paper except your roll number.*
6. *Simple calculators are allowed in the exam.*

**Q:1** The specialty coffee market in a metropolitan area has the following supply and demand equations:

Supply: Qs = 200 + 50P

Demand: Qd = 1000 - 50P

Where Q is the quantity of specialty coffee in grams per day, and P is the price per gram in dollars.

**a.** Calculate the equilibrium price and quantity in this market.

**b.** Suppose due to the concerns about coffee affordability, the local government imposes a price ceiling of $6 per gram. Assess the impact on the equilibrium market. Illustrate the same on a graph.

**c.** Identify the impact of the following situations on the equilibrium:

(i) The government has subsidized the specialized seeds required to grow specialty coffee.

(ii) Because of the extended work hours, coffee is consumed more in different workplaces now.

**[4 + 2 + 4 = 10 Marks]**

**Q: 2** The demand equation for high-end smartphones in a particular market is given by:

Q = 1000 - 0.5P + 0.02M + 0.3Pr

Where: Q = Quantity demanded (in thousands of units); P = Price of the smartphone (in $); M = Average consumer income (in $ thousands); Pr = Price of rival tablet computers (in $)

Currently: P = $800; M = $60,000; Pr = $600. Estimate:

1. The current quantity demanded
2. The price elasticity of demand. Is the demand elastic or inelastic? How a price increase will affect the total revenue?
3. The income elasticity of demand. If the consumer income increases by 5%, what do you expect to happen in terms of the demand of smartphones?
4. The cross-price elasticity of demand concerning tablet computers. If the tablet computer prices decrease by 10%, what shall be the likely outcome for these high-end smartphones?

**[1 + 3 + 3 + 3 = 10 Marks]**

**Q:3A** Estimate the missing values in this short-run cost table. Demonstrate your calculations.

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Quantity** | **Fixed Cost** | **Variable Cost** | **Total Cost** | **AFC** | **AVC** | **ATC** | **MC** |
| 1 |  | 80 | 280 |  |  |  |  |
| 2 |  |  |  |  |  |  | 70 |
| 3 |  |  |  |  | 70.00 |  |  |
| 4 |  |  |  |  |  | 115.00 |  |
| 5 |  | 325 |  |  |  |  |  |
| 6 |  |  |  |  |  |  | 80 |

**[4 Marks]**

**Q:3B** The Daily Grind, a new coffee shop in a busy business district, is trying to determine its breakeven point. The owner has gathered the following information:

Rent, utilities, insurance, etc. - $5,000 per month; The average selling price of a cup of coffee is $4; The other cost per cup of coffee (including coffee beans, milk, cup, lid, etc.) is $1.50.

1. Analyze how many cups of coffee does The Daily Grind need to sell per month, to breakeven?
2. If The Daily Grind sells 3,000 cups of coffee monthly, analyze their profit/loss.
3. If the owner can reduce fixed costs by $500 per month, how would this affect the breakeven point?

**[3 \* 2 = 06 Marks]**

**Q:4A** Comment on how the cosmetics industry has been emerging in India for the past 5 years. Does it reflect oligopolistic characteristics or monopolistic? Give arguments to justify your answer.

**Q:4B** Analyze the reasons that enable a company to generate economies of scale. Which possible factors could push the company to generate diseconomies of scale? Differentiate with examples, the economies of scale and economies of scope.

**[5 + 5 = 10 Marks]**