**JAIPURIA INSTITUTE OF MANAGEMENT, INDORE**

**PGDM**

**FIRST TRIMESTER (Batch 2021-23)**

**END TERM EXAMINATION, OCT-2021**

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| Course Name | **Managerial Economics** | Course Code | **ECO- 40401** |
| Max. Time | **2 hours** | Max. Marks | **40** |

**Note: All questions are mandatory.**

**Q:1** From the following payoff matrix, where the payoffs are profits or losses of the two firms, determine (a) whether Firm A has a dominant strategy; (b) whether Firm B has a dominant strategy, and (c) the optimal strategy for each firm.

|  |  |  |  |
| --- | --- | --- | --- |
| **Firm A** |  | **Firm B** | |
| **Low Price** | **High Price** |
| **Low Price** | **(1 , 1)** | **(3, -2)** |
| **High Price** | **(-2, 3)** | **(2, 2)** |

**[1.5 + 1.5 + 2 = 5 Marks]**

**Q: 2** Comment on following statements with sufficient arguments and examples (You may choose to agree/disagree with the given statements):

1. It is advisable to reduce the prices in a highly elastic market in order to increase total revenue
2. The companies operating in perfect market should shut down as soon as their ATC exceeds the market price
3. The market for life saving drugs is advertisement elastic
4. If the economic profit is zero, then the accounting profit shall always be positive
5. If the Herfindahl index is 1500, the market can be called as monopolistic
6. Vaccines create a specific externality whereas industry pollution is another type of externality. One of them should be penalized, while the other one should be incentivized.
7. A certain car manufacturer regards his business as highly competitive because he is keenly aware of his rivalry with the other car manufacturers. Like the other manufacturers, he undertakes vigorous advertising campaigns seeking to convince potential buyers of the superior quality and better style of his automobiles and reacts very quickly to claims of superiority by rivals. Is this the meaning of perfect competition?
8. A private sector bank has made it mandatory for its back-office employees to devote 30% of their time in cross-selling the products like Mutual funds, SIPs, Insurance. Will this relate to economies of scale or scope?
9. Impact on the equilibrium price and quantity of Air-India flights as customers assume better services after the acquisition by Tata group.
10. Impact on the supply of onions, if the farmers see a better profit in exotic vegetables like broccoli.

**[1.5 \* 10 = 15 Marks]**

**Q:3** Suppose General Motors estimated the following demand equation for Chevrolet automobiles:

QC = 100,000 – 100PC + 2,000N + 50M + 30PF – 1,000PG + 3A + 40,000PI

Where,

QC = Quantity demanded per year of Chevrolet automobiles; PC = Price of Chevrolet automobiles in dollars; N = Population of United States in millions; M = Per capita disposable income, in dollars; PF = Price of Ford automobiles, in dollars; PG = Price of gasoline in cents per gallon; A = Advertising expenditures by Chevrolet in dollars per year; PI = Credit incentives to purchase Chevrolets in percentage points.

**A.** Indicate the change in the number of Chevrolets purchased per year (QC) for each unit change in Price of Chevrolet automobiles; Price of Ford automobiles; and Price of gasoline.

**B.** Calculate Price elasticity of demand; Advertisement elasticity and Income elasticity. Comment on the values so arrived. Given: Average PC = $ 9,000; N = 200 million; M = $ 10,000; PF = $ 8,000; PG = 80 cents; A = $ 200,000 and PI = 1

**C.** Derive the equation of specific demand curve for Chevrolets.

**D.** Suppose the supply equation of Chevrolet cars is given by QSC = 8,00,000 + 20 PC, find the market equilibrium.

**[ 1.5 + 6 + 1 + 1.5 = 10 Marks]**

**Q: 4**

1. In April 2021, Cristiano Ronaldo’s Armband got sold at USD 75,000 in Auction. Which degree of price discrimination does it qualify for and why?
2. Lower airline fares during mid-week qualify for which degree of price discrimination and why?
3. Complete the table of short run production costs as given below (please explain the calculation part as well)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Quantity of Output**  **(Q)** | **Total Variable Cost (TVC)** | **Total Cost (TC)** | **Average Variable Cost**  **(AVC)** | **Average Total Cost**  **(ATC)** | **Marginal Cost**  **(MC)** |
| 0 | 0 |  |  |  |  |
| 1 | 20 | 50 |  |  |  |
| 2 | 30 |  |  |  |  |
| 3 | 48 |  |  |  |  |
| 4 | 90 |  |  |  |  |
| 5 | 170 |  |  |  |  |

1. Suppose a company has average variable cost as INR 15 and it decides to sell at INR 20. The fixed cost of the company is INR 54,000. Find the breakeven sales in terms of units as well as revenue. Also, what should be selling price per unit if the breakeven point needs to be brought down to 6,000 units.

**[1 + 1 + 5 + 3 = 10 Marks]**

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