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**JAIPURIA INSTITUTE OF MANAGEMENT INDORE**

**PGDM (2020 -22)**

**first TRIMESTER**

**END-TERM EXAMINATIONS, NovemBER 2020**

**SET B**

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| --- | --- | --- | --- |
| **Course Name** | **Managerial Economics** | **Course Code** | **ECO101** |
| **Max. Time** | **2 hours 15 mins** | **Max. Marks** | **40 MM** |

**INSTRUCTIONS: All the question are compulsory to attempt. "All students are compulsorily required to upload only one file as solution sheet. There is no compulsion of using graphs if you are writing your answers over word document.**

**In case you take picture of your hand written solutions, then paste all that in a single word document, submit by renaming the file."**

**Q: 1** Suppose the general demand function of Good X is

**Qd = 120 – 4Px + 0.02M + 14Pr**

Where, Qd = quantity of Good X demanded; Px = Price of Good X; M = Average consumer income and Pr = Price of related good R, where Px = $ 200, M = $ 80,000 and Pr = $ 40.

1. What is the price elasticity of Good X? Is the demand elastic, unit elastic or inelastic? How would increasing the price of X affect total revenue? Explain**.**
2. Calculate the income elasticity of demand. Is the good Normal or Inferior? Explain how an increase in income would affect demand for Good X, all other factors affecting the demand for X remaining the same.
3. Calculate the cross-price elasticity of demand. Comment on the nature of the commodity. Explain how an increase in the price of related good would affect demand for X, all other factors affecting the demand for X remaining the same.
4. Illustrate the effect of the following events on the demand/supply curve in terms of the shift and tell the resulting impact on equilibrium price and quantity, for burgers:

a. An article published in newspaper mentions fast food consumption can decrease immunity

b. Due to heavy rains the crops of onion and potatoes have damaged to a larger extent.

**[2.5 \* 4 = 10 marks]**

**Q:2**

1. Comment upon price discriminations practiced by various firms citing examples and sharing what allows a firm to practice price discrimination?
2. Akhil working as a manager at a photocopying establishment used to earn Rs. 1,00,000 per year decides to open his own duplicating place. His revenue during the first year of operations is Rs.2,00,000 and he listed the tentative annual expenses as follows:

|  |  |
| --- | --- |
| **Salaries to hired help** | **Rs 50,000** |
| **Supplies** | **Rs 16,000** |
| **Rent** | **Rs 11,000** |
| **Utilities** | **Rs 5,000** |
| **Interest on bank loan** | **Rs 15,000** |

Calculate the following: (a) Explicit Cost; (b) Implicit cost; (c) Accounting profit; (d) Economic profit

1. Find the optimal solution to this game using dominant/ dominated strategy or Nash equilibrium.

|  |  |  |  |
| --- | --- | --- | --- |
| **Firm A** |  | **Firm B** | |
|  | Advertise | **Don’t advertise** |
| **Advertise** | 10,5 | 15,0 |
| **Don’t advertise** | 6,8 | 10,2 |

**[8 + 6 + 6 = 20 Marks]**

**Q: 3 Airtel CEO Gopal Vittal says strategy to win quality customers paying off; bullish on home broadband, The Economic Times dated October 29, 2020**

NEW DELHI: [Bharti Airtel](https://telecom.economictimes.indiatimes.com/tag/bharti+airtel) chief executive officer [Gopal Vittal](https://telecom.economictimes.indiatimes.com/tag/gopal+vittal) said that the telco’s strategy to win quality customers is paying off and it is continuing its investments in networks to increase customer experience.  
  
“We believe our strategy of being relentlessly focussed on winning quality customers is paying off. Our brand is the most aspirational and trusted brand in the country...experience for us is the cornerstone of our strategy. We therefore continue to invest in Experience,” Vittal said during the earning calls.

The top executive said that [Airtel](https://telecom.economictimes.indiatimes.com/tag/airtel) is building digital capabilities which are allowing it to acquire quality customers. “Second they allow us to drive greater share of wallet and reduce churn – both of which enhance lifetime value of the customer. Third they allow us to eliminate waste,” he said.

During the second quarter, Airtel added 14.4 million 4G subscribers. Vittal said that over the last four

quarters, the telco added 50 million 4G customers on its network.

“We also added 700K net adds in the post-paid segment which was one of our strongest performances in recent times. Our customer net adds was at 13.9 million and our churn was at an all time low of 1.7%. Most heartening was that ARPU also moved up from Rs 157 to Rs 162,” Vittal said.

Airtel is also bullish on its [home broadband](https://telecom.economictimes.indiatimes.com/tag/home+broadband) business in India. Vittal said that the broadband category is at a cusp in terms of growth.

During the quarter, Airtel launched its new Airtel Xstream bundle plans. Under the plans the telco is offering unlimited data over fiber along with its Android 4K TV Box and access to various OTT content.  
  
Vittal said that an adjustment in entry prices was due to competitive reasons towards the end of the quarter. “As a result, we saw growing momentum across the quarter while adding close to 130k customers.”

**A.** Examine the market structure in the article given. Validate with suitable arguments.

**B.** Assess the role of price and non-price competition in this type of market.

**[5\*2 = 10 Marks]**