**JAIPURIA INSTITUTE OF MANAGEMENT, INDORE**

**PGDM**

**FIRST TRIMESTER (Batch 2019-21)**

**MID TERM EXAMINATION, AUGUST-2019**

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| Course Name | **Managerial Economics** | Course Code | **ECO-101** |
| Max. Time | **1 hour** | Max. Marks | **20** |

**Note: All questions are compulsory.**

**Q: 1** Suppose in a metro city only taxicabs and privately owned automobiles are allowed to use the highway between the airport and the downtown. The market for taxicab service is competitive. There is a special lane for taxicabs, so taxis are always able to drive at a speed of 55 miles per hour. The demand for trip by taxicabs is given by

**Qd = 1000 – 400P + 50G – 4E** where, P = Taxi Fare; G = Price of Gasoline (fuel); E = Average speed of a trip by private automobile on the highway.

The supply of trips by taxi is given by the equation: **Qs = 200 + 100P – 30G**

1. Interpret the slope parameter for P, G and E in the demand function. Are the algebraic signs correct for all three independent variables? Explain.
2. If G = $ 4 and E = 30 miles per hour, find the equilibrium taxi fare and quantity
3. Suppose government fixes a maximum fare of $ 1.5 on the said route, what shall be market outcome?
4. Suppose the taxicab drivers unanimously decide to charge a minimum fare of $ 3, what shall be the effect on market?
5. Suppose the average speed of private automobiles is allowed to increase, would it affect the demand for taxicabs? Show with the help of a graph.
6. How would increase in the price of gasoline affect the market equilibrium? Explain using a graph. **[ 4 + 2 + 1 + 1 + 1 + 1 = 10 Marks]**

**Q: 2** The research department of the Corn Flakes Corporation (CFC) estimated the following regression for the demand of the cornflakes it sells:

**Qx = 1.0 – 2.0Px + 1.5I + 0.8Py – 3.0Pm + 1.0A**, where Qx = sales of CFC cornflakes, in millions of 250 gms boxes per year; Px = price of CFC cornflakes, in dollars per 250 gm box; I = personal disposable income, in trillions of dollars per year; Py = price of competitive brand of cornflakes, in dollars per 250 gm box; Pm = Price of milk, in dollars per litre; A = advertising expenditures of CFC cornflakes, in hundreds of thousands of dollars per year. If Px = $2, I = $4, Py = $ 2.50, Pm = $ 1, and A = $2.

1. Compute the sales of CFC cornflakes this year.
2. Analyze if this market is price elastic or inelastic?
3. Basis income elasticity, assess if cornflakes are normal goods, luxury goods or inferior goods?
4. Compute cross price elasticity of demand for the complimentary good milk.
5. Estimate the level of sales next year if CFC increases advertising by 20%, other factors remaining constant
6. If CFC decides to reduce prices by 10%, will it impact the quantity demanded? If yes, then by how much? The total revenue is expected to rise or fall in this case? Justify.

**[ 1 + 2 + 2 + 1 + 2 + 2 = 10 Marks]**

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