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INSTITUTE OF MANAGEMENT TECHNOLOGY – Ghaziabad

PGDM – 1st yr (BATCH: 2015-17)

TERM- I

Subject: Managerial Economics **Exam Date:19.08.2015**

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Time allowed: 1.5 Hours **Max. Marks: 40**

Instructions: Do any four questions

1. What are the various determinants of Demand? With the help of appropriate diagram, explain how demand curve changes with change in various determinants. (4+6)

2. Given a demand function (4 * 2)

$Q = \beta_0 + \beta_1 \text{Price} + \beta_2 \, Income + \beta_3 \text{Price} \, related$, following results are produced.

Observations:37Adjusted R Square: 0.924

F- Ratio: 7.34 P value of F: 0.00031

Variables	Estimate	t-ratio	P-value
B_0	14.5	1.89	0.140
B_1	-6.3	7.59	0.0001
B_2	19.9	0.38	0.33
B_3	21.2	2.53	0.0180

a. Write down the estimated demand estimation.
b. Interpret the estimated coefficients.
c. Evaluate the estimated regression equation.
d. Is the overall regression equation statistically significant at 5% level of significance? F
e. Which problem most probably arises if the p-value for B_3 coefficient becomes 0.328 instead of 0.018?

3. Define price elasticity of demand. The demand for a firm's product has been estimated to be : Q_{dx} =1000-200Px + 4 Y.

Where,Qdx is quantity demanded of product x, Px is price of x and Y is income. If the price of the product is Rupees 3/- per unit and income is Rs.5,

A) Find out the price elasticity of demand at the given price (6+4)

B) Is commodity x normal or inferior? Explain.

4. What are the necessary and sufficient conditions for attaining equilibrium in the perfectly competitive market? Illustrate with diagram the possibility of different short run equilibriums in the perfectively competitive markets. (2+8)

5. Explain with diagram kinked demand curve model of Oligopoly and show why price is rigid.
(7+3)

6. A market has only two sellers. If both firms charge a high price, then each firm will experience a 5 percent decrease in profits. If both firms charge a low price, then each firm will experience a 2 percent increase in profits. If Firm A charges a high price and Firm B charges a low price, then Firm A will experience a 1 percent increase in profits and Firm B will experience a 4 percent increase in profits. If Firm B charges a high price and Firm A charges a low price, then Firm B will experience a 3 percent increase in profits and Firm A will experience a 4 percent increase in profits.
(4+2+2+2)

(i) Construct a payoff matrix for this game.

(ii) Determine whether each firm has a dominant strategy and, if it does, identify the strategy.

(iii) Determine the Nash equilibrium.

(iv) Is this a prisoners' dilemma? Explain.