

International Islamic University Chittagong
Department of Business Administration
Program: EMBA
Mid-Term Examination, Autumn-2019
Course Code: ECON-5302, Course Title: Managerial Economics

Time: 2 Hours

Full marks: 30

[Answer any **THREE (3)**. Parts of question should be **answered serially**. Figures in the right margin indicate full marks]

1. (a) "A good manager should have sound knowledge of managerial economics to take perfect business decision"- Explain. 5

- (b) An MBA graduate rejects a job offer of 20000 Taka per month to run his business in which he invests 100000 Taka. He uses his building that could have earned 240000 Taka as a rent (per year). Other cost of the production are as below: 5

Transportation	5000 Taka
Advertisement	1000 Taka
Wage bills	10000 Taka
Utility Charges	2500 Taka

Compare the amounts of economic profit and accounting profit assuming that total yearly revenue is equal to 1000000 taka.

2. (a) What are the determinants of demand? How these determinants effect the demand of a certain commodity? Explain. 5

- (b) A total revenue function is given by $TR = 120Q - 0.1 Q^3$ 5

(i) In what range of output is demand unitary elastic?

(ii) If the initial price is set at \$71.60, should the price be increased or decreased to maximize TR? Justify your answer.

3. (a) Define the income elasticity and cross elasticity of demand with formula. How could managers use income elasticity of demand and cross elasticity of demand to determine inferior goods, necessities, luxuries, substitutes and complements? 5

- (b) The demand function of goods is given by $Q_x = 50 - 5P_x + 4P_z + 10Y$. Find own price elasticity of demand, cross price elasticity of demand and income elasticity of demand when $P_x = 5$, $P_z = 5$, and $Y = 25$ and make necessary comments 5

4. (a) What is Regression? How does the regression technique take place an important role in Managerial economics? 3

- (b) Eight (8) observations on price (P) and quantity (Q) yield: 7

$$\begin{aligned} \sum (P_i - \bar{P})(Q_i - \bar{Q}) &= -175 & \sum (P_i - \bar{P})^2 &= 40 & \sum (Q_i - \bar{Q})^2 &= 950 \\ \sum (Q_i - \hat{Q})^2 &= 184.375 & \sum (\hat{Q} - \bar{Q})^2 &= 765.625 & \sum P_i &= 128 & \sum Q_i &= 800 \end{aligned}$$

Find out the estimated demand equation $Q = a + b P$ and comment about the Goodness-of-fit of the model.