30 AUG 2025

NATIONAL LAW UNIVERSITY, JODHPUR

End Term Examination April- May, 2025

UG IV Semester

Subject: Functional Management III (Managerial Economics)

Time: Three Hours **Marks: 100**

Instructions:

1. *All questions carry equal marks.*
2. *Attempt any five questions.*
3. *Non- Scientific Calculators are allowed.*

Q.1). How is big data analytics used by the managers as a profit or performance optimization technique? Substantiate your answer with seven suitable entities that have used big data analytics to optimize profit and performance.

(Marks 20)

Q.2). Explain the meaning and interpretation of cross price elasticity of demand, highlighting its application in managerial and legal decision making.

(Marks 20)

Q.3). Explain the barometric method of forecasting. Identify and describe the methods used to measure different types of indicators. What criteria are used to select leading indicators? Do you think truck sales and rentals can be considered a leading indicator? What insights do truck sales and rentals offer regarding trends in manufacturing and infrastructure development?

(Marks 20)

Q.4 (a) Explain the different stages of the short-run production function. Discuss which stage a rational producer would choose to operate in and examine why the other two stages are considered inefficient from an economic standpoint.

(b) Consider the production function $Q=L^{0.9}K^{0.7}$ where Q is output, L is labour, and K is capital. Calculate the returns to scale exhibited by the production function. What will happen to the spacing between isoquants as output increases under this return to scale, and why?

(c)A small textile firm is facing rising input costs and declining demand. As a result, the market price has fallen below the firm's average variable cost (AVC), while fixed costs remain unchanged. Should the firm shut down production in the short run? Justify your answer using appropriate economic reasoning and cost concepts.

(Marks 10+5+5=20)

Q.5 (a) In the Indian telecom market, a few major firms like Jio, Airtel, and Vodafone-Idea dominate the industry. These firms closely monitor each other's pricing, advertising, and data plans. Despite the potential for price cuts, they often prefer to avoid destructive competition. Identify the type of market structure and justify your answer with features reflected in the case. How can the reluctance of these firms to cut prices be explained through the concept of the prisoner's dilemma? Illustrate how mutual interdependence can lead to a stable but sub-optimal outcome.

(b)Explain how monopoly outcome is economically inefficient and why there is a need to regulate it.

(Marks 12+8=20)

Q.6 Consider two scenarios:

(a) A local clothing store in Jodhpur purchases t-shirts at ₹200 each from a supplier. The store owner adds a 50% markup on the purchase cost of each t-shirt, making the selling price ₹300.

b) A popular multiplex in Jodhpur charges ₹500 per ticket during weekend evenings when demand is high. However, during weekday mornings, the ticket price is reduced to ₹250 to attract more visitors.

For each pricing strategy, answer the following

1. Explain how does the pricing strategy works in the given scenario.
2. What are the advantages and disadvantages of using this strategy?
3. In which market conditions is each strategy most effective?

Marks (10+6+4=20)

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Q.1). What is the theory of a firm? Draw and explain the circular flow of economic activity. Identify and briefly explain the resources employed by the firm, the constraints on the operation of the firm and the limitations of the theory of the firm.

(Marks 20)

Q.2). (A) Oranges and kinnows are closely related fruit cousins. With this information, indicate what happens in the market (demand, supply and price) for orange juice with the help of graphs if (a) the price of kinnows increase (b) a virus spreads through the kinnow crop, killing a large proportion of the kinnow variety, (c) a new dwarf orange variety is developed with much faster growth (d) medical research proves that this new breed results in orange that are healthier and reduce cholesterol, and (e) a direct subsidy on each tree of the new variety is given to farmers planting it.

(B)Examine the determinants of demand for online music streaming platforms.

(Marks 10+10=20)

Q.3). Identify any two cases where the demand was overestimated and two cases where demand was underestimated. If making accurate forecasts is so difficult and forecasts are often far off the mark, why do managers make them? How can the firm minimize its forecasting errors?

(Marks 20)

Q.4(a) A firm uses labour and capital to produce output. At a given level of input use, the marginal product of labour (MP_L) is 40, and the marginal product of capital (MP_K) is 30. The wage rate is ₹25 per unit of labour, and the rate of interest is ₹15 per unit. Based on this information, is the firm using the optimal combination of inputs? If not, which input should the firm adjust and why? Justify your answer with proper reasoning.

(b)A corporate law firm is planning a strategic expansion. In the long run, it has the flexibility to adjust all inputs — including hiring more lawyers and paralegals, investing in AI-based legal research tools, expanding office space, and restructuring its workflow. Initially, when the firm doubles all its inputs, its case-handling capacity increases by more than double. Later, further expansion leads to a proportionate increase in output, but eventually, the firm observes rising per-unit costs and operational inefficiencies. Explain the three stages of returns to scale that firm is experiencing as it scales up operations. How are these stages of returns to scale reflected in the shape of the long-run average cost (LRAC) curve? Support your answer with economies and diseconomies of scale.

(Marks 8+12=20)

Q.5 (a) How does the presence of monopoly lead to deadweight loss as compared to competitive markets?

(b) Oligopolist firms often prefer price stability due to the fragility of implicit collusion. Explain this behaviour with the help of kinked demand curve model.

(Marks 12+8=20)

Q.6 (a)During festive seasons, an airline increases ticket prices due to high demand. At the same time, it offers discounted fares to students and senior citizens. Identify and explain the two different pricing strategies used in this scenario. How does each strategy help the airline achieve different economic objectives?

(b) Which cost concept is often used as a surrogate for marginal cost, and why? Explain in light of cost-based regulation under the Competition Commission of India (CCI) Act, 2002.

(Marks 15+5=20)