Enrollment No. _____ jiitsimplified

Name jiitsimplified

Jaypee Institute of Information Technology, Noida
T1 Examination, 2014
B.Tech I/II Semester

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Max. Time: 1Hr
Max. Marks: 20

Course Title: Managerial Economics
Course Code: 10B11PD311

Q1. Mr. Mehra operates a small shop specializing in party favors. He owns the building and (3) supplies all his own labour & Rs 1,20,000 money which was kept in a bank earning 5 % monthly rate of interest. Before starting his own business, he earned Rs12000 per month by renting out the store and earned Rs 25000 per month as a store manager for a large departmental store. His monthly revenue from operating his shop are Rs 1,00,000 and his total monthly expenses for labour and supplies amounted to Rs 60,000. Calculate his accounting and economic profit.

Q2. A 10 per cent rise in the price of a good leads to 60 per cent fall in the demand of the good. (2.5) A consumer buys 80 units of the good at a price of Rs.20 per unit. How many units will the consumer buy when the price changes to Rs. 22.

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Q3. News corp's demand function for satellite internet services is given as follows: (3)

$$Q_{Sat}(\text{in thousands}) = 152.5 - 0.9P_{Sat} + 1.05P_{DSL} + 1.10P_{Cable}$$

Where, P_{Sat} is the price of the satellite internet services, P_{DSL} is the price of DSL Internet services, and P_{Cable} is the prices of the high speed cable internet service. Suppose the prices of the DSL and Cable is $30 each. Further more, News corp has identified that its monthly revenue need to be at least $12 million to cover its monthly cost. If P_{Sat} is $50, would its revenue be sufficiently high to cover its costs? Is it possible for the News corp to cover its cost given the current demand function keeping P_{DSL} and P_{Cable} constant. Justify

Q4. The first test grade and the final grades of six students in a management science course are (6) tabulated as follows:

Student	1	2	3	4	5	6
First Test Grade	98	77	88	80	96	61
Final Grade	93	78	84	73	84	64

(a) Predict the final test grade of a student who scored 83 in the first test.
(b) Calculate the coefficient of determination and interpret the result.

Q5. Alok likes sandwiches and coffee. The price of a sandwich is Rs.5 and a cup of coffee is (3) Rs.3. He is spending all his income at the basket he is currently consuming and his marginal rate of substitution of sandwiches for coffee is 2. Is he at optimum? If so why? If not should he buy fewer sandwiches and more coffee or the reverse? Argue in favour of your opinion.

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Q6 Fill in the Blanks: (2.5)
a) Total product increases at a decreasing rate beyond_____.
b) When a marginal product is _____ than the average product, the average product must be decreasing.
c) _____ shows all the combination of goods and services that can be produced if all the society resources are used efficiently.
d) In an inelastic demand condition an increase in the price will lead to_____ in total revenue.
e) Convexity of an indifference curve is due to _____ marginal rate of substitution.

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