VPM's
DR VN BRIMS, Thane
Programme: MMS (2016-18)
First Semester Examination December 2016

| Subject | Managerial Economics |  |  |
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| Roll No. |  | Marks | 60 Marks |
| Total No. of Questions | 7 | Duration | 3 Hours |
| Total No. of printed pages | 2 | Date | $\mathbf{2 0 . 1 2 . 2 0 1 6}$ |

Note: Q1 is compulsory and solve any FOUR from the remaining SIX questions.
Q1) 20 Marks (Compulsory)
Jai owns a petrol-pump at 100th mile-stone on Delhi-Jaipur highway. With an exponential growth in traffic on the highway and a steady substantial increase in sales of petrol and diesel, he saw a business opportunity in an air-conditioned retail store. He started stocking goods which are usually required by highway travellers, like ready to eat snacks, cold drinks, chocolates, biscuits, coffee etc. His being the lone store he could charge substantially higher prices. His sales continued to increase as the traffic increased. To attract more customers, Jai began to offer ready to carry cartons. The idea found a big favor with the customers. During the peak season, he would offer these cartons at discounted price. These sales became the talking point among the highway travellers. Last year, a new big and modern store came to be set-up at 75th milestone on the highway.
It did affect Jai's business but only marginally. More recently he observed a new store coming up at 90th milestone. He realized that competition had come to his doorsteps. To meet the challenge he permanently reduced the price of the ready to carry cartons to half of its existing price. At the end of the year he finds that his sales in general and of cartons in particular had declined by 20 percent.

## Questions

1. Where has Jai gone wrong?
2. Suggest a pricing strategy for Jai to meet the new challenges. List your assumptions. (5+15)

## Attempt Any FOUR from the Remaining SIX Questions

Q2) Any two from (a) or (b) or (c) —__ (5x2) = 10 Marks
a) Quantity demanded is 20 units at a price of Rs.500. When there is a fall in price to Rs. 400 it results in a rise in demand to 32 units. Therefore the change in quantity demanded is12 units resulting from the change in price of Rs.100. What is the coefficient of price elasticity?
b) Which of the following is a normal good? Why?
i. Shoe
ii. Diamond
iii. Salt
iv. Cosmetics
v. Printer
c) When demand is inelastic, an increase in price leads to:
i. an increase in total revenue
ii. a decline in total revenue
iii. no change in total revenue
iv. a decrease in profit

Explain your answer
Q3) Any two from (a) or (b) or (c) ——_ (5x2) = 10 Marks
a) You are about to start a coffee shop. How would you forecast demand for it?
b) Explain the following chart.

| Units of <br> labour | Total <br> production(tp) | Marginal <br> product <br> $(\mathrm{mp})$ | Average <br> product <br> $($ ap $)$ | Stages |
| :---: | :---: | :--- | :--- | :--- |
| 0 | 0 | 0 | 0 |  |
| 1 | 10 | 10 | 10 |  |
| 2 | 22 | 12 | 11 |  |
| 3 | 33 | 11 | 11 | Stages 2 |
| 4 | 40 | 7 | 10 |  |
| 5 | 45 | 5 | 9 |  |
| 6 | 48 | 3 | 6.85 |  |
| 7 | 48 | 0 | 5.62 |  |
| 8 | 45 | -3 |  |  |

c) Describe with the help of suitable diagrams the MES.

Q4) Any two from (a) or (b) or (c) - (5 x2) $=10$ Marks
a) A producer of photocopiers derives profits from two sources: the immediate profit it makes on each copier sold and the additional profit it gains from servicing its copiers and selling toner and other supplies. The firm estimates that its additional profit from service and supplies is about $\$ 300$ over the life of each copier sold. There is disagreement in management about the implication of this tie-in profit. One group argues that this extra profit (though significant for the firm's bottom line) should have no effect on the firm's optimal output and price. A second group argues that the firm should maximize total profit by lowering price to sell additional units (even though this reduces its profit margin at the point of sale). Which view (if either) is correct?
b) Describe pricing in an Oligopoly.
c) Comment on the following statement: "Average cost includes both fixed and variable costs, whereas marginal cost only includes variable costs. Therefore, marginal cost is never greater than average cost."
Q5) Any two from (a) or (b) or (c) ——— (5x2) = 10 Marks
a) Suppose a firm assesses its profit function as
$\pi=-10-48 Q+15 Q 2-$ Q3.Compute the firm's profit for the following levels of output: $\mathrm{Q}=2,8$, and 14 .
b) What is monopolistic competition? Explain with an example.
c) Analyze the effects on the demand for cars of the following (UP / DOWN / CONSTANT):
i. A higher tax on gasoline
ii. A tax on car parking
iii. Increased automation on subways
iv. Government legislation for increased safety in cars, like side impact protection
v. A 'congestion' tax imposed on cars using certain routes at certain times.

Q6) Any two from (a) or (b) or (c) -_ ( $5 \times 2$ ) $=10$ Marks
a) With a suitable example explain kinked demand curve
b) A company is producing 15,000 units. At this output level, marginal revenue is INR22, and the marginal cost is INR18. The firm sells each unit for INR48 and average total cost is INR40. What can we conclude from this information?
i. The company is making a loss.
ii. The company needs to cut production.
iii. The company needs to increase production.
iv. Not enough information is provided.
c) Describe the term Long Run Average Total Cost.

Q7) Any two from (a) or (b) or (c) —— ( $5 \times 2$ ) $=10$ Marks
a) What is break-even point? Explain with a diagram.
b) A garment manufacturer spends $1,00,000$ as fixed cost. He has a variable input cost of INR 240 and currently sells at INR 320. What is his Break-even point?
c) What is IRR? Which is a better method to evaluate capital investments, NPV or IRR?

