

Department of Management Sciences (PUMBA), University of Pune  
MBA++ (AY: 2011-12) - Trimester I  
Internal Test : 103, Managerial Economics

Marks : 40

Duration : 1 Hour 30 Minutes

- Note:** 1) All questions in both the sessions are compulsory.  
2) Figures to the right of a question indicate marks assigned to it.  
3) Write answers to two sections in separate answer books  
4) Sub-questions should be written together.

**Section – I**

Q.1 A) Read the following paragraph and answer the questions below. (6 Marks)

**Ample Stocks Keep Maize Prices Down**  
Eco. Times 8.9.2011

Prices of maize, a major poultry feed have stabilized in the past one month owing to a sluggish demand from industries which have adequate stocks. With a fall in demand from textiles and food processing industries, starch and liquid glucose manufacturers have further reduced their capacity by 20-25% in the past quarter.

However, prices are 15% higher than the previous year's but the poultry industry hopes for a decline in prices with an increase in production during the 2011-2012 seasons. "There has been no cost pressure in August and September as poultry feed prices have not skyrocketed as they tend to do in these months. With ample stock and harvest season around the corner, we don't see a major hike coming. In case the monsoon stretches and harvesting is delayed, prices could slightly move up," said Godrej Agrovet managing director Balram Yadav.

- Discuss determinants of demand for maize.
- Why do maize prices rise in this season ?
- Why are maize prices expected to fall ?

B) Analyze the present demand for diesel. (4 Marks)

Q.2 Attempt any two of the following. (8 Marks)

a) Given the demand and supply functions, find out equilibrium price and output. If a subsidy of rupee one is provided what will be the new equilibrium output and price ?

$$D = 40 - 2P$$

$$S = 24 + 2P$$

P = Price, D=Quantity demanded, S= Quantity supplied

b) Given the following information, calculate cross elasticity of demand for B with respect to price of A. Comment on your answer.

	Original	New
$D_B$	80 Units	90 Units
$P_A$	Rs.5	Rs.4.5
$P_B$	Rs.5	Rs.4.8

c) Given the following levels of sales in the last six months, forecast the demand for November, 2011 by using Exponential Smoothing.

(W=.4)

Month	May	June	July	August	September	October
Sales	34	40	36	35	33	32

Q. 3 Attempt any two of the following.

(12 Marks)

- a) State and explain the Law of Demand.
- b) Explain the case of Dumping.
- c) 'Under Perfect Competition all firms get only Normal Profits'. Explain.
- d) Write briefly on Giffen goods.

### Section - II

Question 1 (5 marks)

You are a consultant for D Mart. At the food counter, during the busy lunch hour (12-1 pm), the amount of sandwiches (Q) that can be made is determined by the number of workers (L). Suppose each worker makes \$6 per hour (i.e. their wages) and sandwiches sell for \$4. Further, you have observed the number of workers and quantity of sandwiches over several days and have estimated the following production function:

$$Q = 4L - 0.25L^2$$

- a. How many workers should D Mart employ during the lunch hour to maximize profits?
- b. Compute the maximum profit at D Mart.
- c. Compute the marginal revenue product of the sixth worker. Explain why it is or is not profit maximizing to hire a sixth worker.
- d. Suppose instead that D Mart wants to keep the lines as short as possible by maximizing production. How many workers should D Mart employ during the lunch hour?

Question 2 (5 marks)

Enterprise Corporation makes speedboats. Their annual costs are:

$$TC = 0.5Q^2 + 20Q + 150$$

Here Q is the number of speedboats. Assume that Enterprise can sell any number of speedboats for a price of \$50. The \$150 in the total costs corresponds to maintenance costs on a warehouse that Enterprise has already paid.

- a. Calculate how many speedboats Enterprise should make to maximize profits.
  - b. Calculate the profits of Enterprise Corp.
  - c. Suppose Enterprise can sell the warehouse for \$500 and close operations. Should Enterprise do so?
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