



## ASSIGNMENT MEMORANDUM

**SUBJECT : MICROECONOMICS (MIC)  
ECONOMICS 2 (ECO201)**

**ASSIGNMENT : 2<sup>ND</sup> SEMESTER 2011**

### SPECIFIC INSTRUCTIONS

Answer **ALL** the questions.

Textbook references are to Mohr, P., Fourie, L., and Associates. 2008. *Economics for South African Students*. 4<sup>th</sup> edn. Pretoria: Van Schaik.

### QUESTION 1 [20]

1.1  $e = -1.5/3 = -0.5$  (1)

1.2  $e = (4000/10000) / (2/5) = 1$  (absolute value) (2)

Turnover before price change =  $6 * 8000 = 48000$

Turnover after price change =  $4 * 12000 = 48000$

→ Turnover unchanged (1)

1.3

	Price	*	Quantity	=	Turnover
Before change	1	*	1	=	1

1	0.88	*	1.15	=	1.012
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Turnover **rises** by 1.2 %

2	1.1	*	0.88	=	0.968
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Turnover **falls** by 3.2 %

→ Alternative 1 is chosen. (4)

1.4 Good X: Normal good, necessity

Good Y: Normal good, luxury good

Good Z: Inferior good (3)

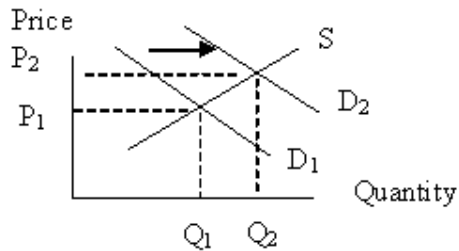
- 1.5 Good A:  $5\% * 3 = 15\%$   
 Good B:  $5\% * -0.2 = -1\%$  (4)
- 1.6 If cross-price elasticity of demand  $> 0$ , then C and D are substitutes.  
 If cross-price elasticity of demand  $< 0$ , then C and D are complements. (2)
- 1.7 The demand for this good is price inelastic ( $e < 1$ )  
 It is an inferior good (income elasticity of demand  $< 0$ ).  
 It is a complement to another good (cross-price elasticity of demand  $< 0$ ). (3)

## QUESTION 2 [30]

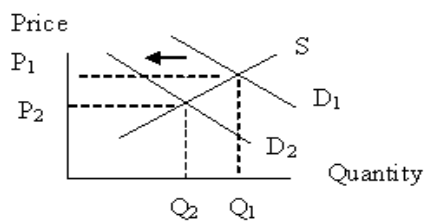
- 2.1 In their answers students need to include the following concepts discussed in Chapter 9 of Mohr et al. (2008) in the strategy.
- Definition of price elasticity and explaining what a price elasticity of 1.4 means
  - How to calculate price elasticity
  - Different categories of price elasticity and indicating that Spoornet has an elastic demand
  - The determinants of the price elasticity of demand and especially the effect of substitutes on Spoornet prices
  - Relationship between price elasticity and total revenue and the effect on total revenue when price changes.
- 2.2 In the second part the student must be able to demonstrate they understand the difference between inelastic and elastic demand and the effect on total revenue when price changes.

## QUESTION 3 [40]

- 3.1 This is false. The price of the good is not a demand shifter. The negative slope of the demand curve already shows how a change in price will affect the quantity demanded. A change in the price moves us to a new point along the same demand curve. The curve does not shift. (2)
- 3.2 The effect of the increase in income depends upon whether hot dogs are a normal or inferior good. If hot dogs are a normal good, the increase in income will cause an increase in the demand for hot dogs. This increased demand will raise both the equilibrium price and quantity.

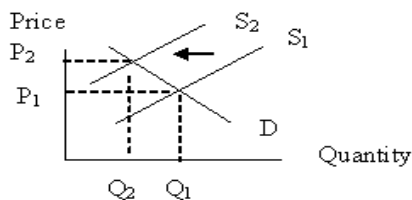


However, some undiscerning families might perceive hot dogs as an inferior good. They might look at the increase in income as an opportunity to eat fewer hot dogs and shift to more expensive foods instead (a plausible although gastronomically unfortunate choice). If so, the demand for the hot dogs will shift to the left and both the equilibrium price and quantity will fall.



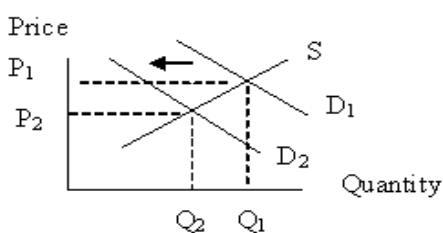
(8)

- 3.3 (a) This decreases the supply of cattle and, therefore, of beef. The supply of beef shifts to the left (less is supplied at each price). The equilibrium price rises and the equilibrium quantity falls



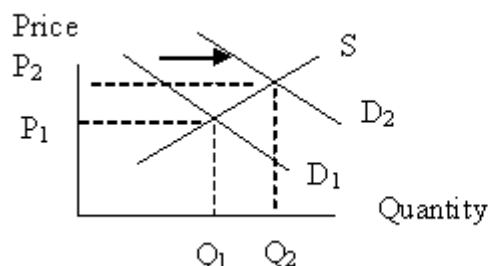
(5)

- (b) Since beef now is scarce and more expensive, consumers will eat fewer hamburgers and, therefore, demand fewer hamburger rolls (rolls are complementary goods to hamburgers). This decreases the demand for the rolls (less is demanded at each price). The equilibrium price and quantity of rolls both fall.



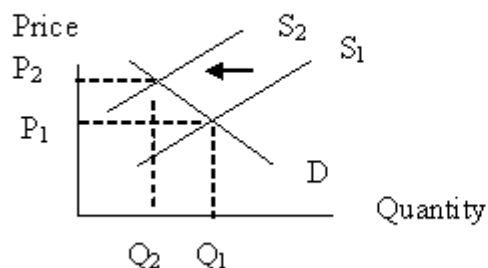
(5)

- (c) Because beef now is scarce and more expensive, consumers will look for a substitute – like chicken. The demand for chicken will rise or shift up and to the right (more is demanded at each price). This increased demand raises both the equilibrium price and quantity of chicken.



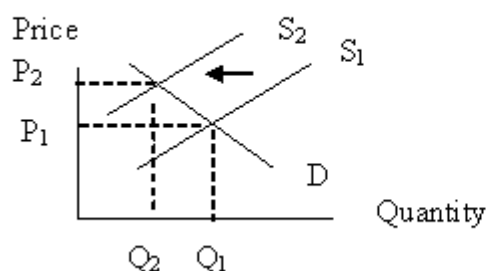
(5)

- (d) Beef is an input into the production of vegetable beef soup. Since beef is now more expensive, the cost of producing the soup will rise. The increased costs make soup production less profitable at each price. The supply of vegetable beef soup shifts to the left (less is supplied at each price). This raises the equilibrium price of the soup and lowers the equilibrium quantity.



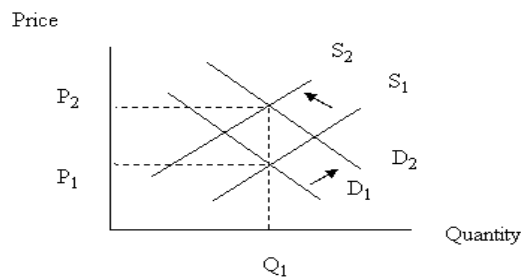
(5)

- 3.4 The increased profitability of ethanol will cause farmers to plant more corn. However, to plant more corn they must plant less of alternative crops such as wheat. This will lower the supply of wheat (less will be supplied at each price). This raises the equilibrium price of the wheat and lowers the equilibrium quantity.



(5)

- 3.5 If consumers expect future prices to be higher they will try to stock up on plywood now while the price still is low. This will increase the current demand (more will be demanded at each price) and shift the demand curve to the right. Producers will react as well. Since they also expect prices to be higher in three months, they have an incentive to hold onto their inventories and wait until the prices rise to sell. As a result, the current supply of plywood will drop or shift to the left. The combination of higher demand and lower supply will drive the price up. The effect on quantity is unclear and will depend upon which of the curves shifts the most. In the graph below, the curves shift by the same amount and the quantity stays the same.



Note that the expectations of a higher price actually cause a higher price. Economists say that such expectations of higher future prices often are 'self-fulfilling'. **(5)**

**PRESENTATION**

**[10]**