DEPARTMENT OF ECONOMICS AND ECONOMETRICS

Supplementary Assessment July 2014

APK CAMPUS

Instructions:

1. The paper consists of three (3) pages.
2. Noiseless calculators may be used.
3. Show all calculations.
4. Write legibly.

Question 1 [10]

1. Differentiate between accounting profit and economic profit **(4)**

2. September has a choice of opening a car wash business or working as a construction worker. If he opens a car wash business he is planning to charge R20 per car he washes. The car wash material and the rent will cost him R200 and R500 per month respectively. If he works as a construction worker, he will earn R200 per month

   A. If he washes 50 cars per month. What is his accounting profit? **(3)**

   B. What is the economic profit if he chooses to open a car wash? **(3)**

Question 2 [20]

1. The pineapples price fell by 40% on over supply. The number of pineapples loads arriving at the Johannesburg fresh produce market had jumped threefold. In addition, other summer fruit such as mangos and watermelon were starting to come to the market suppressing the demand for pineapples.

   A. With an aid of a demand and supply diagram explain what will happen to equilibrium price and quantity of pineapples. **(4)**

2. The price of the electricity went up again. With an aid of the demand and supply diagrams show the effect of an increase in the price of electricity in the market for both electricity and bulb. **(6)**

3. You are given the following information:

$P = 12.4 - Q$ and $Q = 1.3 + 0.5P$

    A. Calculate the equilibrium quantity and price **(2)**

    B. Draw demand and supply diagram showing all the calculations **(4)**

    C. Is there any excess demand or supply at the price of 12, what is the quantity of excess demand or supply. Show the excess on the diagram **(4)**

Question 3 [20]

1. The marketing manager for Shopane transport estimated the following demand for the business
$P = 2000 - 50Q$

    A. Derive the marginal revenue equation for the business **(4)**

    B. At what price if any would the demand be unitary elastic **(6)**

2. In 1993 Philips Morris cut cigarette prices by 18%. Its major competitor matched the price cut. Not surprisingly, the quantity sold of Philips Morris cigarette increased by 12.5%. In June 13, Philips Morris profit fell by 25% as a result of a bad pricing strategy.

    A. Calculate the price elasticity of demand for Philip Morris **(3)**

    B. Is there any evidence that to determine whether the decision by Philip Morris mangers decreased the price firm performance. **(3)**

3. Draw a diagram showing the relationship between Price Elasticity, Marginal Revenue and Total Revenue **(4)**

Question 4 [21]

Baesie (PTY)LTD is the only company selling electricity in Kanana township. The market demand and total cost of the company are:

$P = 30 - 6Q$ $TC = 14 + 3Q + 3Q^2$

    A. What is the profit maximizing rule of this company **(2)**

    B. Determine the profit maximizing quantity and price **(6)**

C. Determine the profit (6)

D. With the aid of a diagram explain whether this firm make economic profit in the long run (7)

Question 5 [16]

Baesie and long life are the only firms in the industry. The market demand and the firm's total costs (NB The firms share the same total cost) are:

$TC = 500 + 4Q + 0.5Q^2$

$P = 100 - Q = 100 - q_A - q_B$

A. Determine the quantity and profit of each firm (NB assume they collude) (7)

B. Determine the quantity of each firm (NB assumes they compete in terms of quantity) (9)

Question 6 [13]

1. Given (10)

   $TC = 100 + 3Q + 6Q^2 + 8Q^3$

   Calculate:

   A. Fixed costs

   B. Variable costs

   C. Average Fixed costs

   D. Average variable cost

   E. Marginal costs

2. Give three characteristics of perfect competition. (3)

End