UNIVERSITY OF SWAZILAND

DEPARTMENT OF ECONOMICS

FINAL EXAMINATION 2006

TITLE OF PAPER: INTRODUCTION TO MICROECONOMICS (1) – IDE

COURSE CODE: ECON 201 – 1

INSTRUCTIONS: 1.   ANSWER ANY <u>THREE</u> QUESTIONS
                     2.   ALL QUESTIONS CARRY 25
                           MARKS EACH

TIME ALLOWED: TWO (2) HOURS

THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR.

QUESTION 1

(a) Discuss the determinants of price elasticity of demand [9 marks]
(b) Explain the concept of cross price elasticity of demand [4 marks]
(c) Why are short-run average cost curves U-shaped [6 marks]
(d) Why are long-run average cost curves U- shaped [6 marks]

QUESTION 2

Let the demand function for maize be given by:

$$Q = 250Y^{1.3} \ P^{-1.6} \ R^{0.7}$$

Whereby:

Q = quantity of maize demanded
P = the mean retail price of the maize
R = the mean retail price of all other commodities

Calculate:

(i) The price elasticity of demand [6 marks]
(ii) The income elasticity of demand [6 marks]
(iii) The cross price elasticity of demand and determine whether the goods in question are compliments or substitutes [7 marks]
(iv) Explain the usefulness of the price elasticity of demand concept [6 marks]

QUESTION 3

(a) Utilizing diagrams and algebra, explicitly explain the relationship between unit costs (MC and AVC or ATC) and unit output curves (MP and AP) [15 marks]
(b) Explain the difference in resource allocation between Capitalist and Socialist economic systems. Compare and contrast the two systems in solving 'economic problem'. [10 marks]

QUESTION 4

The supply and demand function of a sugar cane farmer are given as follows;

$$1220P = 1129 + 4Q_s$$
$$Q_d + 40.5P = 3000$$

(a)   Determine the equilibrium price and quantity in he market   [5 marks]

(b)   If government decides to impose a 15% tax on the farmer, calculate the new equilibrium price and quantity   [10 marks]

(c)   If instead of a tax, the government pays a subsidy of E1.50 to the farmer for each tonne sold, determine the new equilibrium conditions and the total amount of the subsidy that has to be paid by the government.
[10 marks]

QUESTION 5

(a)   The following constrained maximization problem is for a consumer seeking to maximize utility (U) given his level of income (I = 10) and price of X and Y, P_x = 3 and P_y = 5 respectively

Maximize	$U = X^{3/8} Y^{5/8}$
S.t.	$I = P_x X + P_y Y$
i.e.	$10 = 3X + 5Y$

Use the Lagrangian method to;
(i)   Determine the utility maximizing levels of X and Y   [7 marks]
(ii)   Determine the maximum level of utility   [3 marks]

(b)   What is consumer equilibrium and what is the significance of the tangency point   [5 marks]

(c)   Using the concept of economies and diseconomies of scale explain the shape of the LAC curve and the relationship between short-run and long-run cost curves.   [10 marks]