

UNIVERSITY OF SWAZILAND
FACULTY OF SOCIAL SCIENCE
DEPARTMENT OF ECONOMICS

MAIN EXAMINATION
MAY 2008

TITLE OF PAPER: INTERMEDIATE ECONOMIC THEORY

COURSE CODE: ECON 301

TIME ALLOWED: THREE (3) HOURS

**INSTRUCTIONS: 1. ANSWER FOUR (4) QUESTIONS: TWO(2)
FROM SECTION A AND TWO (2) FROM
SECTION B.**

**2. ALL QUESTIONS CARRY EQUAL
MARKS OF 25 EACH.**

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

SECTION A

QUESTION 1

a) Write short explanatory notes on the following:

- i) Roy's Theorem. (3)
- ii) Properties of an indirect utility function. (3)
- iii) Nonsatiation in consumer theory. (3)

b) Using a simple economy characterized by only two commodities x_1 and x_2 such that these commodities constitute a utility function: $U(x_1, x_2) = x_1 x_2$

- i) Derive the compensated demand functions for both commodities. (6)
- ii) Derive the expenditure function. (4)
- iii) Explain all concepts associated with Hotelling's theorem and further prove that this theorem can be used to get back the compensated demand functions that you derived in (i). (6)

QUESTION 2

- a) How are the total product, marginal product and the average product curves related in production theory? (15)
- b) Write short explanatory notes on the following microeconomic terms:
 - i) Homogeneity of production functions (5)
 - ii) Cobb-Douglas production function (5)

QUESTION 3

Suppose that there are only two bakers in Matsapha (SUB & Mr Bread). Both bakers bake bread that tastes alike. SUB has a constant marginal cost of E1 per loaf of bread, while Mr Bread has a constant marginal cost of E2 per loaf of bread. Fixed costs are zero for both bakers. The inverse demand function for bread in Matsapha is $P = 6 - 0.01q$, where q is the total number of loafs sold per day.

- i) What will be the cournot reaction functions for these bakers? (8)
- ii) Determine the equilibrium quantities for both firms. (6)
- iii) Determine the profit for each firms (6)
- iv) What will be the equilibrium price (5)

QUESTION 4

a) Write short explanatory notes on the following concepts of general equilibrium:

- i) Partial market equilibrium analysis. (3)
- ii) A pure exchange economy (3)
- iii) Edge worth Box (3)

b) Provide a non-technical outline of the logic of the first theorem of welfare economics. (Use the edge worth box analysis). (16)

SECTION B

QUESTION 5

- a) Compare and contrast the macroeconomic views of the Monetarist and Keynesian schools of thought. (15)
- b) Another macroeconomic school of thought that emanated in the 1970's following the monetarist school of thought is the Rational Expectations. Provide an outline of the main arguments for this school of thought. (10)

QUESTION 6

- a) Explain, with the aid of diagrams, the conditions under which an expansionary monetary policy is completely ineffective in correcting economic instability. (13)
- b) Explain, with the aid of diagrams, the conditions under which an expansionary monetary policy is completely ineffective in correcting economic instability. (12)

QUESTION 7

- a) Write short explanatory notes on the following:
 - i) Automatic stabilizer (3)
 - ii) Proportional income tax (3)
 - iii) Open market operations (3)
- b) Suppose that the current income level is E500. The marginal propensity to consume is 0.50, and let us assume that taxes are unrelated to income. What will be the equilibrium income if government spending increases by E10? (8)
- c) Still assuming the current income level of E500 as in b). This time given that full employment is defined by E550. If taxes are unrelated to income and the marginal propensity to consume is 0.8. How much of an increase in government spending is needed to move the economy to full employment if the government is committed to operate with a balanced budget? (8)

QUESTION 8

a) Write short explanatory notes on the following concepts:

- i) Efficiency wage models (3)
- ii) Inflationary gap (3)
- iii) Natural rate of unemployment (3)

b) The Swaziland Federation of Trade Union (SFTU) and Swaziland Federation of labors (SFL) in their wage negotiations with their employers managed to attain a bargained real wage represented by the following function: $W/P_e = m_0 + m_1 Y$. Let us assume that these unions were basing their wage negotiations on adaptive expectations so that they expect the price level to be constant over time i.e. $P_e = P_{-1}$. Given that the price that firms set after taking into account the bargained real wage is represented by $P = (1-b)W$, where b is the mark-up:

- i) Derive the aggregate supply equation for the Swazi economy using the information provided above and also graph the aggregate supply curve. (10)
- ii) What are the properties of the aggregate supply curve you derived in (i) (6)