

**UNIVERSITY OF SWAZILAND  
FACULTY OF SOCIAL SCIENCE  
DEPARTMENT OF ECONOMICS**

**MAIN EXAMINATION**

**MAY 2010**

**TITLE OF THE PAPER: INTERMEDIATE ECONOMICS**

**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 SUPPOSED TO BE OPENED UNTIL PERMISSION  
HAS BEEN GRANTED BY THE INVIGILATOR.**

## SECTION A

### QUESTION 1

- a) Write short explanatory notes on the following microeconomics concepts:
- i) Properties of a utility function (5)
  - ii) Properties of a expenditure function (5)
  - iii) Properties of an indirect utility function. (5)
- b) Given an indirect utility function:  $U(P,M) = 2^{2/3} 3^{-1} M P_1^{-1/3} P_2^{-2/3}$   
Derive the ordinary demand functions for the two commodities (10)

### QUESTION 2

The Economics Society at UNISWA wants to raise funds for the association by selling hot dogs outside the tuck shop every lunch hour. The production of hotdogs depends on the electric frying pans (K) and workers (L) hired every lunch hour, and these inputs constitute a production function like:

$$Q=100K^{1/2} L^{1/2}$$

and if the frying pans can be rented for  $r$  per hour and the labor hired at  $w$  per hour then the total costs function for producing hot dogs is :  $TC=rK + wL$

- i) Suppose that the society wants to produce 800 hotdogs per hour, how will the cost minimization problem look like? (4)
- ii) Derive the lagrangian function for the number of hot dogs outlined in (i). (3)
- iii) Outline the F.O.N.C for the lagrangian function in (ii). (3)
- iv) Suppose that all inputs are paid E80 per hour, then how many frying pans and workers is the society supposed to hire in order to produce the 800 hot dogs per hour? (6)
- v) Calculate the total costs of producing the 800 hotdogs per hour (3)
- vi) What will be the marginal products of labor and capital? (6)

### **QUESTION 3**

Mvume Burgers PTY LTD is a newly formed restaurant that specializes in cooking burgers using Impala meat in Swaziland. You have been appointed as the Chief Operations Officer of this restaurant. Using the theory of the firm, explain with the aid of appropriate graphs how your company will maximize profits in the short- run and in the long-run. (25)

### **QUESTION 4**

- a) According to Walras Law the value of aggregate excess demand is identically zero and this is true for all possible choices of prices and not just the equilibrium prices. Provide an algebraic proof of this assertion. (15)
- b) Differentiate between a partial market equilibrium analysis and a general equilibrium analysis. (10)

## SECTION B

### QUESTION 5

- a) Write short explanatory notes on the following labor concepts: **(5marks each)**
- i) Aggregate Supply Curve
  - ii) Wage setting under trade unions
- b) A hypothetical economy is defined by the following data:
- A Mark-up equals  $b = 0.25$
  - A wage curve defined as  $W/P^e = 1 - 2.5b$
  - A labor force of 1000 workers
  - A production function defined as  $Y = N$ , where  $Y = 800$
  - Adaptive expectations are assumed to be constant overtime, i.e.  $P^e = P_{-1}$
- i) Calculate the price that will be set by firms when the wage rate is E500-00 per worker? **(5)**
  - ii) Calculate the price determined real wage the workers will finally receive. **(5)**
  - iii) What will be the rate of Unemployment? **(5)**

### QUESTION 6

- a) Write short explanatory notes on the following terms:
- i) Crowding out **(5)**
  - ii) Differentiate between dividends and capital gains **(5)**
- b) How effective is monetary policy in a flexible exchange rate system with capital that is perfectly mobile? **(7)**
- c) How effective is expansionary monetary policy in Swaziland considering the fact that the country is a member of the CMA and capital is mobile between the member countries? **(8)**

### **QUESTION 7**

Write short explanatory notes on the following: **(5 marks each)**

- i) Efficiency wage models
- ii) Government expenditure multiplier
- iii) Portfolio Choices
- iv) Transmission mechanism
- v) Autonomous spending

### **QUESTION 8**

- a) Outline the main properties of an aggregate supply curve. **(15)**
- b) Outline the main arguments behind the Rational Expectations school of thought. **(10)**