

UNIVERSITY OF SWAZILAND
DEPARTMENT OF ECONOMICS
SUPPLEMENTARY EXAMINATION 2015

TITLE OF PAPER: MICROECONOMICS
COURSE CODE: ECON 201
INSTRUCTIONS: ANSWER QUESTION 1 AND THREE OTHER QUESTIONS
TIME ALLOWED: THREE (3) HOURS
TOTAL MARKS: 100

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Question One

- a. A firm's isoquant curve is given by

$$Q = L^{2/5} K^{3/5}$$

Where Q = level of output

L = labour input

K = capital input

Assume $P_L = 2$, $P_K = 3$

Where P_L = price of labour

P_K = price of capital

Utilizing the Lagrangian Method, calculate the minimum level of costs that is necessary to produce $Q = 12$. [15 marks]

- b. Explain why a profit maximizing firm (in the short run) produces in stage II and not in stage III or stage I. [10 marks]

Question Two

- a. The following constrained maximization problem is for a consumer seeking to maximize utility (U) given her level of income $I = E100$ and prices of X and Y are E5 and E10 respectively. The utility function is given by $U = XY$.

(i) Find the utility maximizing levels of X and Y [10 marks]

(ii) Determine the maximum level of utility [2 marks]

- b. In order to explain the nature of consumer choice, we started by making a series of assumptions about the typical consumer. State and explain these assumptions. [13 marks]

Question Three

- a. Define Consumer Surplus [3 marks]

- b. For each of the following demand functions, find the consumer surplus when $P = E4$

(i) $Q = 10 - P$ [5 marks]

(ii) $Q = 64P - 2$ [5 marks]

- c. Briefly describe the functions of an economic system. [12 marks]

Question Four

- a. Suppose you are the owner of a supermarket. Each week you offer some goods at "special prices". Would it make more sense to offer specials on goods with low price elasticity of demand or those with a high price elasticity of demand? Explain your choice [10 marks]
- b. Explain the difference between a normal good and an inferior good [6 marks]
- c. Use the concept of elasticity of demand to explain the difference between necessities, luxuries and inferior goods. [9 marks]

Question Five

- a. Outline the "economic problem" [12 marks]
- b. Explain the difference in resource allocation between capitalist and socialist economic systems. Discuss the advantages of using either of these two economic systems in solving the "economic problem". [13 marks]

Question Six

- a. Explain and illustrate with diagrams the following concepts:
- i) Monopolistic exploitation of a resource [7 marks]
- ii) Monopsonistic exploitation of a resource [7 marks]
- b. Explain and illustrate how price fixing may be used to counteract monopsonistic exploitation [6 marks]
- c. Differentiate between perfect and imperfect collusion. [5 marks]