# UNIVERSITY OF SWAZILAND <br> FACULTY OF SOCIAL SCIENCES <br> DEPARTMENT OF ECONOMICS SUPPLEMENTARY/RESIT EXAMINATION PAPER: JULY 2018 

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TITLE OF PAPER : INTERMEDIATE MICROECONOMICS
COURSE CODE : ECO 301/ECON 302
TIME ALLOWED : TWO (2) HOURS
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## INSTRUCTIONS :

1. ANSWER QUESTION ONE (1) AND ANY TWO (2) QUESTIONS OF YOUR CHOICE.
2. QUESTION ONE (1) CARRIES FORTY (40) MARKS AND THE OTHER QUESTIONS YOU WILL CHOOSE CARRY THIRTY (30) MARKS EACH.
3. NON PROGRAMMABLE CALCULATORS ARE ALLOWED.
4. WHERE NECESSARY, FIGURES ARE TO BE ROUNDED UP TO TWO (2) DECIMAL POINTS.
a) Write short explanatory notes on the following:
( 5 marks each)
i) Roy's identity
ii) Hoteling's theorem
iii) Indirect utility function
iv) Compare and contrast the preference theory with the theory of revealed preferences.
b) Given the following utility function: $U=x_{1} x_{2}$
i) Derive the hicksian demand functions
ii) Derive the expenditure function
iii) Use the appropriate theorem to get back the hicksian demand function for the second commodity.

## ANSWER ANY TWO (2) QUESTIONS FROM THE FOLLOWING:

## QUESTION 2

Discus the type of relationship that exists between the total product, marginal product and the average product curves for a firm that only has labour as the variable input. In your discussion, explain how the law of diminishing marginal product affect the production curves.

## QUESTION 3

Discus the type of relationship that exists between the total cost, marginal cost and the average cost curves of a firm that is experiencing increasing returns to scale.

## QUESTION 4

a) Argue the case why a contract curve in a standard two-person, two-commodity pure exchange economy represents a pareto efficient allocation.
b) According to Walrus 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.

