



MACHAKOS UNIVERSITY

University Examinations for 2018/2019 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF ECONOMICS

**FOURTH YEAR SUPPLEMENTARY EXAMINATION FOR
BACHELOR OF ECONOMIC AND STATISTICS AND
EET 300: MICROECONOMIC THEORY III**

DATE: 27/9/2019

TIME: 8:30 – 10:30 AM

INSTRUCTIONS:

- (i) Answer question one (Compulsory) and any other two questions
- (ii) Do not write on the question paper
- (iii) Show your workings clearly

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Using hypothetical examples, Differentiate between cournot, market leadership and Bertrand market (15 marks)
- b) Given the following information $p = a - bQ$.

Calculate Total Revenue for a monopoly and perfect competition (5 marks)
- c) Demonstrate that the marginal utility is equal to marginal rate of substitution. (10 marks)

QUESTION TWO (20 MARKS)

- a) Explain types of production function (8 marks)
- b) Demonstrate the differences between the Marshallian demand curve, Hicksian demand curve and slusky demand curve (12 marks)

QUESTION THREE

- a) Use the following example $C(w_1, w_2, y) = 10w_1^{\frac{1}{3}}w_2^{\frac{2}{3}}y$ to demonstrate Duality between production function and cost function (15 marks)
- b) Differentiate between total effect and substitution effect in the slusky demand equation (5 marks)

QUESTION FOUR (20 MARKS)

- a) Briefly explain what an indirect utility function is and highlight some of its properties (10 marks)
- b) With aid of examples demonstrate the properties of the profit function (10 marks)

QUESTION FIVE (20 Marks)

- a) Distinguish between the perfect competitive markets and the monopoly markets. (10 marks)
- b) Describe some of the properties of cost profit functions (10 marks)