



# MACHAKOS UNIVERSITY

University Examinations for 2020/2021 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF ECONOMICS

THIRD YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF ECONOMICS

EET 300: MICROECONOMIC THEORY III

DATE: 26/3/2021

TIME: 2.00-4.00 PM

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## INSTRUCTIONS:

Answer Question **ONE** and any other **TWO** questions

### QUESTION ONE (30 MARKS)

- Using hypothetical examples, Differentiate between cournot, market leadership and Bertrand market (15 marks)
- Given the following information  $p = a - bQ$ . Calculate Total Revenue for a monopoly and perfect competition (5 marks)
- Demonstrate that the marginal utility is equal to marginal rate of substitution (10 marks)

### QUESTION TWO (20 MARKS)

Explain types of production function (8 marks)

- Demonstrate the differences between the Marshallian demand curve, Hicksian demand curve and slusky demand curve (12 marks)

**QUESTION THREE (20 MARKS)**

- 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)