



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF AGRICULTURAL AND FOOD SCIENCES
UNIVERSITY EXAMINATION FOR DEGREE OF BACHELOR OF SCIENCE
AGRIBUSINESS MANAGEMENT,
FOURTH YEAR FIRST SEMESTER 2017/2018 ACADEMIC YEAR**

REGULAR

COURSE CODE: BEN 3415

COURSE TITLE: INTERMEDIATE MICROECONOMICS

EXAM VENUE: LAB 19

STREAM: BSc (Agribusiness Management)

DATE: 20/12/17

EXAM SESSION: 9.00 – 11.00AM

TIME: 2.00 HOURS

Instructions:

- 1. Answer ALL questions in Section A (compulsory) and ANY other TWO questions in Section B.**
- 2. Candidates are advised not to write on the question paper.**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room.**
- 4. Candidates are advised to carry a calculator for this examination**

SECTION A [30 MARKS]

Answer ALL questions in Section A

1. Explain the following terms as used in microeconomics.
 - a. Optimization principle. [2 Marks]
 - b. Equilibrium principle. [2 Marks]
 - c. Pareto efficiency. [2 Marks]
 - d. Budget set. [2 Marks]
 - e. Marginal rate of substitution. [2 Marks]
2. If we observe a consumer choosing (X_1, X_2) when (Y_1, Y_2) is available one time, are we justified in concluding that $(X_1, X_2) > (Y_1, Y_2)$? [2 Marks]
3. What kind of preferences are represented by a utility function of the forms below
 - a. $U(X_1, X_2) = \sqrt{X_1 + X_2}$? [2 Marks]
 - b. $U(X_1, X_2) = X_1 + \sqrt{X_2}$? [2 Marks]
 - c. $V(X_1, X_2) = \min \{2X_1, X_2\}$? [2 Marks]
4. Give an example of perfect complements and illustrate the preferences of the goods using indifference curves. [2 Marks]
5. Illustrate diagrammatically the consequence of imposing rationing constraints on a consumer's welfare. [5 Marks]
6. Explain three assumptions of well-behaved preferences. [3 Marks]
7. Originally the consumer faces the budget line $p_1x_1 + p_2x_2 = m$. Then the price of good 1 doubles, the price of good 2 becomes 8 times larger, and income becomes 4 times larger. Write down an equation for the new budget line in terms of the original prices and income. [2 Marks]

SECTION B [40 MARKS]

Answer any TWO questions in Section B

1.
 - a. Discuss three fundamental axioms of consumers' preferences. [6 Marks]
 - b. Analyze graphically and in detail how the following changes impact on a consumer's budget set and welfare.
 - i. Changes in income. [7 Marks]
 - ii. Changes in prices of goods [7 Marks]
2.
 - a. Explain why taking a monotonic transformation of a utility function doesn't change the marginal rate of substitution? [6 Marks]
 - b. Discuss the effect of the following economic policy tools on a consumer's budget constraint.
 - i. Taxes. [5 Marks]
 - ii. Subsidies. [5 Marks]
 - iii. Rationing. [4 Marks]
3.
 - a. Explain two cases in which the tangency condition does not hold at an optimal choice? [5 Marks]
 - b. Illustrate using a diagram and in detail the optimal choices with:
 - i. Perfect substitutes. [5 Marks]
 - ii. Perfect complements. [5 Marks]
 - iii. Concave preferences. [5 Marks]