



**ALUPE UNIVERSITY
COLLEGE**

Bastion of Knowledge...

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**OFFICE OF THE DEPUTY PRINCIPAL
ACADEMICS, STUDENT AFFAIRS AND RESEARCH**

UNIVERSITY EXAMINATIONS

2017/2018 ACADEMIC YEAR

FIRST YEAR FIRST SEMESTER EXAMINATION

**FOR THE DEGREE OF BACHELOR
OF APPLIED STATISTICS WITH
COMPUTING**

SCHOOL: SCIENCES

COURSE CODE: STA 110

**COURSE TITLE: INTRODUCTION TO
STATISTICAL ECONOMICS**

DATE: 11th December, 2017 TIME: 2.00pm-5.00pm

INSTRUCTION TO CANDIDATES: SEE INSIDE

THIS PAPER CONSISTS OF 22 PRINTED PAGES

PLEASE TURN OVER

Insert the numbers of the questions you have answered in the order done

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For examiner's Use Only

Question	I.E	E.E
CAT		
EXAM		
TOTAL		



Student Admission No.....Exam Card No.....Signature.....

INSTRUCTIONS TO CANDIDATES

1. Write your **Admission Number, Exam Card Number** and **Sign** in the spaces provided at the bottom of each page of the Examination Booklet. **DO NOT** write your name anywhere in this booklet.
2. Write on both sides of the pages.
3. All rough work must be done in the Answer sheets and crossed through.
4. If supplementary pages are used, they must be fastened all together at the end of this Booklet. Supplementary pages should be used only after all the leaves in the booklet have been exhausted.
5. It is a serious examination offence to cheat or to have unauthorized materials including **MOBILE PHONES** (whether on or off) in the examination venue.
6. In no circumstances must Answer Booklet used or unused, be removed from the examination room by a candidate.
7. The Booklet is for **Examination use only** in a designated examination room. Unauthorized possession of the Answer sheets by a student or any other person constitutes an examination irregularity calling for stiff disciplinary action.
8. Do not pluck any page from this Booklet. Any extra/unused answer sheets should be returned to the **Examination Office**.
9. Candidates who come to examination room 30 minutes late will not be allowed to sit for the exam.
10. Candidates will not be allowed to leave the exam room once the exam commences.
11. Candidates are advised that importance is attached by examiners to accuracy and clarity of expression.
12. Committing any form of irregularity is prohibited and shall attract severe disciplinary action in accordance with Alupe University College Examination Regulations.

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INSTRUCTION TO CANDIDATES

Answer **ALL** questions from section A and any **THREE** from section B.

Illustrate your answers with suitable diagrams wherever necessary.

Duration of the examination: 3 hours

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SECTION A (31 MARKS)**QUESTION ONE (16 MARKS)**

- (a) Discuss three measures of National Income. [3mks]
- (b) List and explain two different types of taxes. [2mks]
- (c) Write short notes on the following terms in economics.
- i) Scarcity and choice [2mks]
 - ii) Demand and supply [2mks]
 - iii) Utility and scope of economics [2mks]
 - iv) Abnormal demand curve [2mks]
- d) Discuss any three effects of price control [3mks]

**QUESTION TWO (15 MARKS)**

- a) Define the following terms Average product, Marginal product and Total product. [3mks]
- b) Explain the usefulness of the concept of demand in decision making process. [3mks]
- c) Define the term economics. [2mks]
- d) Discuss three importance of economics. [3mks]
- e) Distinguish between macro-economics and micro-economics. [2mks]

SECTION B (31 MARKS)

Answer any **THREE** questions. All Questions carry equal marks

QUESTION THREE (13 MARKS)

- a) Discuss any six factors which determine changes in supply. [6mks]
- b) I) Define the term production in economics. [2mks]
- II) Discuss various stages of production with the help of a diagram. [5mks]

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QUESTION FOUR (13 MARKS)

- a) Explain any six importance's of micro-economics. [6mks]
- b) Suppose a two commodity market model the supply and demand function as.

$$Q_{S_1} = -3 + 4P_1$$

$$Q_{S_2} = -18 + 4P_2$$

$$Q_{D_1} = 4 - P_1 + \frac{1}{2}P_2$$

$$Q_{D_2} = 10 + P_1 - P_2$$

- i) Explain the relationship between the two commodities by giving valid economic reason. [3mks]
- ii) Using the functions provided, calculate the prices and quantities. [4mks]

QUESTION FIVE (13 MARKS)

- a) Define and discuss with the aid of a diagram the concept of equilibrium with respect price and quantity. [6mks]
- b) Given the following economic functions.

$$Q_a = 3P^2 - 4P$$

$$Q_b = 24 - P^2$$

Where P and Q are price and quantity respectively.

- i) Which of the two functions represent demand curve? Supply curve? And why? [3mks]
- ii) At what values of price and quantity is the market in equilibrium? [4mks]

QUESTION SIX (13 MARKS)

- a) Discuss any five obstacles of economic development in a country. [5mks]
- b) Explain the following concepts of national income.
- i) Gross Domestic Product [2mks]
- ii) Gross National Product [2mks]
- iii) Per-Capita Income [2mks]
- iv) Net national product [2mks]

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QUESTION SEVEN (13 MARKS)

- a) Assume a consumer spends all his income in the purchase of two goods x and y whose prices are 30 and 20 per unit. The consumer monthly income is Kshs. 12000. He is satisfied with the various combinations of x and y but prefers to spend his income in equal proportion on the commodities at a ratio of 1:1 to maintain his level of satisfaction.
- i) Using clearly labeled diagram show the relevant budget line in difference curve indicating the equilibrium position of the consumer. [4mks]
 - ii) What is the effect on increase of consumer income from 12000 to 24000 per month? [3mks]
 - iii) Explain the income and substitution effect of change in the price of X and assuming that commodity X is **normal good** and an **inferior good**. [3mks]
- b) Discuss any three types of tax in Kenya. [3mks]



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