(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS

2021/2022 ACADEMIC YEAR

FIRST YEAR

MAIN UNIVERSITY EXAMINATION

FOR THE COMMON COURSES

COURSE CODE: KUC 125

COURSE TITLE: QUANTITATIVE SKILLS

DATE:25th MAY 2022   **TIME: 9.00am-11:00am**

INSTRUCTIONS TO CANDIDATES

Answer Question ONE and Any other TWO (2) Questions
Show clarity in expression and workings

TIME: 2 Hours

This Paper Consists of **3 Printed Pages**. Please Turn Over. ▶

QUESTION ONE (30 Marks)

(a) Highlight any **five** internal sources of public revenue in Kenya   (5marks)

(b) Differentiate between the following
    (i) Tax evasion and tax avoidance   (2 marks)
    (ii) Square matrix and singular matrix   (2 marks)
    (iii)Descrete and continuous frequency tables   (2 marks)
    (iv)Price index and quantity index   (2 marks)
    (v) Gross Domestic Product and Gross National Product   (2marks)

(c) Explain any **three** uses of index numbers as a measure of inflation   (6marks)
(d) State any five factors that affect birth rates in Kenya   (5 marks)
(e) Given that   A = show that $AA^{-1} = A^{-1}A = I$ (4 marks)

QUESTION TWO (20 Marks)

(a)The following are marks obtained from a test.

12	36	40	30	28	20	19	10	16	10
19	27	15	26	20	19	7	45	21	33
26	37	6	20	11	17	37	30	5	20

(i)Construct a frequency distribution table starting with 0 – 9, 10 – 19, ----   (2 marks)
(ii)Estimate the mean, mode and median mark of the test and comment   (9 marks)
(iii)Calculate the coefficient of variation and interpret your results   (5 marks)

(b) State and explain the Adam Smith's principles taxation   (4 marks)

QUESTION THREE (20 MARKS)

Public finance involves financing of state activities of the government
    i. State any **four** functions of the Government   (4 marks)
    ii. Describe any **four** guiding principles of public expenditure   (4 marks)
    iii. Explain any **four** roles of a budget as a tool for managing public funds   (8 marks)
    iv. Explain any B measures that the Kenya government can undertake to improve its budget deficit   (4 marks)

QUESTION FOUR (20 MARKS)
(a)The percentage proportion of tax revenue to the Gross Domestic Product is lower in Kenya due to high tax rates.
(i) State any **three** principles of taxation in Kenya   (3 marks)

(ii) Explain any **four** sources of opportunities for tax evasion in Kenya (4 marks)

(iii) Describe any **three** remedial measures taken by the Kenya Government to reduce tax evasion (3 marks)

(b) The table below shows quantity and price of some cereals sold at Kibabii Market in the years 2020 and 2021

Items	2020		2021	
	Price(ksh)@kg	Quantity (kgs)	Price(ksh)@kg	Quantity(kgs)
Maize	7	70	5	49
Beans	5	27	7	28
Coffee	10	35	9	29
Wheat	9	50	4	42
Millet	3	16	10	25

Using 2020 as the base year, compute the Fishers Ideal Index and comment (10 marks)

QUESTION FIVE (20 Marks)

(a) The pipes A, B and C are used to pump water from a flooded underpass. When all taps are used, 4200 litres may be pumped. When A & B are used, 3000 litres may be pumped and when A & C are used, 2800 litres may be pumped. Find the pumping capacity of each pump (9 marks)

(b)Stock market provides an avenue for investors to invest in shares of quoted companies

   (i) Explain any **three** functions of a stock market in Kenya (3 marks)

   (ii) Describe any **four** circumstances under which a company maybe deregistered in the stock market (4 marks)

  (ii) State any **four** factors considered by investors while investing in a stock market (4 marks)