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COLLEGE

Bastion of Knowledge...

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OFFICE OF THE DEPUTY PRINCIPAL
ACADEMICS, RESEARCH AND STUDENTS AFFAIRS**UNIVERSITY EXAMINATIONS****2018 /2019 ACADEMIC YEAR****SECOND YEAR FIRST SEMESTER REGULAR EXAMINATION****FOR THE DEGREE OF BACHELOR OF
ECONOMICS****COURSE CODE: ECO 212****COURSE TITLE: ECONOMIC STATISTICS I****DATE: 10TH DECEMBER, 2018****TIME: 9.00 AM – 12.00 PM****INSTRUCTION TO CANDIDATES**

- SEE INSIDE

THIS PAPER CONSISTS OF 4 PRINTED PAGES**PLEASE TURN OVER**

ECO 212: ECONOMIC STATISTICS I

STREAM: ECONOMICSDURATION: 3 HOURSINSTRUCTIONS TO CANDIDATES

- i. Answer three questions. Question one is compulsory
- ii. Do not write on the question paper

QUESTION ONE (30 MARKS)

- a) Define statistics. (2 marks)
- b) Explain any FIVE importance of studying statistics in the field of business. (5 marks)
- c) Explain what is meant by the following terms as used in sampling: (6 marks)
 - i. Simple Random Sampling
 - ii. Systematic Sampling
 - iii. Stratified Sampling
- d) The following report was prepared by an Examiner Officer on the performance of Mwei District in a National Examination.
Out of 3,500 male candidates below 20 years of age, 500 passed and 300 failed. Of the 1100 male candidates 20 years old and over, 200 passed and 900 failed.
As regards the female candidates, out of 500, below 20 years of age, 100 passed and 400 failed. Of these 340 females 20 years old and over, 80 passed and 260 failed.
Required: Present the above information in a tabular form. (5 marks)
- e) From the following information, construct a pie chart.

Product	Sales (000, s)
A	200
B	150
C	100
D	150

(4 marks)



- f) The following figures were taken from a survey on a certain business firm.

No. of establishments	Goods sold	Net Output (000, s)
23		104
25		250
26		850
20		1400
15		2200
7		3100

Using the above information, draw a Lorenze Curve and interpret. (8 marks)

QUESTION TWO (20 MARKS)

- a) The following distribution shows daily wages of 100 employees.

Wages (sh)	No. of employees
0 – 30	20
30 – 60	35
60 – 90	30
90 – 120	15

Required: Draw the following from the above

- Ogive curve
 - Percentage ogive curve
 - Histogram
 - Frequency polygon
 - Frequency curve . (10 marks)
- b) Calculate the arithmetic mean from the following data using an assumed mean of 25 by short cut method. (10 marks)

Values	5	10	15	20	25	30	35	40	45	50
Frequency	20	43	75	67	70	45	40	10	8	6

QUESTION THREE (20 MARKS)

- State and explain three important methods of studying correlation. (6 marks)
- Calculate the Karl Pearson's coefficient of correlation between X and Y given.

X	23	27	28	28	28	30	30	33	35	38
Y	18	20	22	27	21	29	27	29	28	29

(14 marks)

QUESTION FOUR (20 MARKS)

a) Calculate the consumer price index and the inflation rate. A fixed basket of goods 4 plates of pilau and 4 loaves of bread. (6mks)

Year	Pilau Price	Price of Bread
2005	4	2
2006	6	3
2007	8	4

- i) Compute the Cost of the basket of goods in each year (4 marks)
- ii) Calculate the consumer price index (4 marks)
- iii) Calculate the inflation rate (4 marks)

b) In 2000 the consumer price index was ¹⁰⁰ and the average starting salary for a statistics graduate was Ksh. 24, 000. Today the CPI is 180 and the average starting salary is Ksh. 50,000.

Are the statistics graduates better off today or in 2000? (8mks)

QUESTION FIVE (20 marks)

- a) Outline four methods of collecting primary data. (8 marks)
- b) Calculate the Regression Equation of X and Y from the following data. (12 marks)

X	1	2	3	4	5
Y	2	5	3	8	7