



(Knowledge for Development)

**KIBABII UNIVERSITY
UNIVERSITY EXAMINATIONS**

2020/2021 ACADEMIC YEAR

SECOND YEAR SECOND SEMESTER

SUPPLEMENTARY EXAMINATION

**FOR THE DEGREE OF BACHELOR OF
COMMERCE/BACHELOR OF BUSINESS MANAGEMENT**

COURSE CODE: BCO 212/BBM211

COURSE TITLE: BUSINESS STATISTICS

DATE: 12TH FEBRUARY, 2021

TIME: 2.00PM - 4.00PM

INSTRUCTIONS TO CANDIDATES

Answer Question One in Section A and Any other TWO (2) Questions in Section B

TIME: 2 Hours

KIBU observes ZERO tolerance to examination cheating

This Paper Consists of 2 Printed Pages. Please Turn Over.

SECTION A

QUESTION ONE

- a) Ten students scored the following marks. Calculate the mean and standard deviation of the following values.

43,75,48,51,51,47,50,47,40,48

6 marks

- b) Using the above data determine

i) Pearson's measure of skewness.

4 marks

ii) Comment on the answer in (i) above

2 marks

iii) Determine the median

2 marks

- c) The data below relates to advertising expenditure by a number of companies in the market.

Expenditure	number of companies
Less than 500	210
500 – 1000	184
1000 - 1500	232
1500 – 2000	348
2000 – 2500	177
2500 - 3000	83
3000 - 3500	48
3500 - 4000	12
4000 and above	9

Draw the cumulative frequency curve (Ogive).

11 marks

- d) Explain the difference between

i) discrete and continuous data

ii) primary and secondary data

5 marks

SECTION B

QUESTION TWO

The following data relate to a set of commodities used in a particular process. Calculate Laspeyres and Paasche price indices for period 1. 10 marks

Commodity	unit of purchase	BASE PERIOD		PERIOD 1	
		Price Sh. 000	Quantity (Units)	Price sh.000	Quantity (units)
A	2 gallon drum	3.6	100	4.0	96
B	1 Tonne	8.0	12	9.0	10
C	10 pounds	4.5	16	4.1	18
D	100 metres	0.5	1100	6.0	1200

b) Explain uses and limitations of index numbers. 10 marks

QUESTION THREE

c) From past records, the probability that a machine will need correcting adjustments during a day's production run is 0.3. If there are 8 machines running on a particular day, find the probability that:

- v) No machines need correcting 2.5 marks
- vi) Just one machine needs correcting 2.5 marks
- vii) Exactly two machines need correcting 2.5 marks
- viii) More than two machines need correcting 2.5 marks

d) Explain five reasons why the mean is a popular measure in statistics 10 marks.

QUESTION FOUR

- b) Explain the merit of using sampling as an approach in studying a population. In your explanation point the also the weakness of using a census.
- c) The management of an engineering firm with ten operating plants of similar size producing small components has observed the following pattern of expenditure on inspection and defective parts delivered to the customers.

Inspection expenditure
Per 1000 units

defective parts
per 1000 units

25
30
15
75
40
65
45
24
35
70

50
35
60
15
46
20
28
45
42
22

- iii) Calculate the correlation coefficient to show the management the relationship between expenditure on inspection and defective parts delivered. 12 marks
- iv) Advice the management. 2 marks