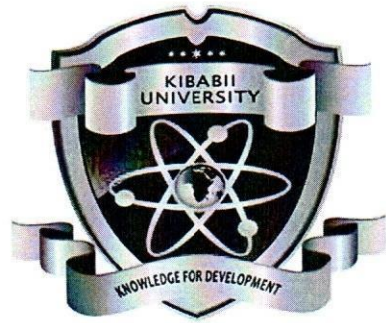


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25



(Knowledge for Development)

**KIBABII UNIVERSITY  
(KIBU)**

**UNIVERSITY EXAMINATIONS  
2021/2022 ACADEMIC YEAR  
MAIN**

**SECOND YEAR SECOND SEMESTER EXAMINATIONS**

**FOR THE DIPLOMA  
IN  
CRIMINOLOGY & SOCIAL WORK**

**COURSE CODE: DCR 064**

**COURSE TITLE: SOCIAL STATISTICS**

**DATE: 28<sup>TH</sup>/01/2022**

**TIME: 9AM-11AM**

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**INSTRUCTIONS TO CANDIDATES**

*Answer question one (compulsory) and any other two questions*

TIME: 2 Hours

KIBU observes ZERO tolerance to examination cheating

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

### QUESTION ONE

- a) Discuss any four data collection methods ( 8 marks)
- b) State any four ways in which social statistics is abused. ( 4 marks)
- c) Give any two reasons why range is not a good measure of variation (2 marks)
- d) Differentiate between a discrete and a continuous variable ( 2 marks)
- e) Define the following terms ( 8 marks)
- Arithmetic mean
  - Mode
  - Hypothesis testing
  - Frequency distribution
- f) Ochieng would like to know the average amount of money police officers carried on a particular day. From a sample of his closest friends, he has collected the following data; 250,2000,4000,650,2000,1050,90,8000,1500,264. What is the mean pocket money ( 3 marks)
- g) Which of these two sets of data has greater variability ( 3 marks)
- |                            |                            |
|----------------------------|----------------------------|
| A                          | B                          |
| Mean=150kgs                | Mean=0.85cm                |
| Standard deviation= 30.5kg | Standard deviation=0.015cm |

### QUESTION TWO

- a) Discuss the two categories of sampling plans ( 6 marks)
- b) Evaluate the mean, variance and standard deviation of the following distribution

x	5-7	8-10	11-13	14-16	17-19	20-22	23-25
f	2	4	8	7	5	3	1

( 14 marks)

### QUESTION THREE

- a) Discuss any three properties of a normal distribution ( 6 marks)
- b) In a class of 100 pupils, the mean of a test is 15 and  $S=2.5$ , assuming that the scores are normally distributed.
- How many pupils scores lie between 12.5 and 17.5? (4 marks)
  - How many pupils scored above 20? ( 3 marks)
  - How many pupils scored between 16 and 18? ( 4 marks)
  - Suppose 95% of the top scorers are to be selected, what is the maximum score one has to obtain in order to be selected? ( 3 marks)

#### QUESTION FOUR

- a) Distinguish between ( 8 marks)
- i. Mode and median
  - ii. Bar graph and Histogram
  - iii. A parameter and a statistic
- b) Discuss the four levels of measurement in social statistics ( 12 marks)