



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2016/2017

**SPECIAL/SUPPLEMENTARY EXAMINATION FOR DIPLOMA IN CRIME PREVENTION
AND MANAGEMENT**

ASC 088: FOUNDATIONS OF SOCIAL STATISTICS

DATE: Monday, 26th June, 2017

TIME: 8.00 a.m. - 10.00 a.m.

INSTRUCTIONS:

Answer question **ONE** and any other **TWO**.

QUESTION 1

- a) What is social statistics? (3 marks)
- b) Distinguish between descriptive and inferential statistics. (7 marks)
- c) What are the main uses of social statistics? (12 marks)
- d) Briefly discuss the four levels of measurement in social statistics. (8 marks)

QUESTION 2

- a) Highlight the differences between qualitative and quantitative approaches to data analysis in social science.
- b) The table below shows the frequency of number of crime incidents reported at a police station in Nairobi East district. Study it and answer questions that follow.

Frequency distribution of crimes reported

Number of incidents	Frequency	Percent	Cumulative
			Percent
1 - 3	54	57.4	57.4
4 - 6	22	23.4	80.8
7 - 9	8	8.5	89.3
10 - 12	4	4.3	93.6
14 - 17	3	3.2	96.8
18 - 28	3	3.2	100
Total	94	100	100

- i) Calculate:
 - a) The mode number of crime incidents reported (2 marks)
 - b) The median number of incidents reported (3 marks)
 - c) The mean number of crime incidents reported (5 marks)
- ii) What are your conclusions about the crime in the area? (4 marks)

QUESTION 3

- a) Explain the term variability? (3 marks)
- b) The table below represents the distributions of ages of 150 college students who participated in a survey on fears of crime. Study it and answer questions that follow.

Distribution of ages of study participants

Age	Frequency	Percentage	Cumulative Percentage
18	13	8.7	8.7
19	16	10.7	19.3
20	17	11.3	30.7
21	23	15.3	46.0
22	29	19.3	65.3
23	30	20.0	85.3
24	<u>22</u>	<u>14.7</u>	<u>100.0</u>
Total	150	100.0	100.0

- i) What is the range of the age variable? (3 marks)
- ii) Calculate the variance of the age. (6 marks)
- iii) What is its standard deviation? (4 marks)
- iv) What is your conclusion about the variability of the age variable? (4 marks)

QUESTION 4

- a) Define a normal curve (4 marks)
- b) Explain three main characteristics of a normal curve (9 marks)
- c) How would normal curve be used to explain the distribution of criminal activities in a given geographic area? (7 marks)

QUESTION 5

- a) Briefly explain main ways in which statistical data is presented. (9 marks)
- b) What are the two major types of data analysis used in social science? (6 marks)
- c) Why is it necessary to conduct data diagnostics? (5 marks)