



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2016/2017

**SUPPLEMENTARY/SPECIAL EXAMINATION FOR THE DIPLOMA OF CRIME
PREVENTION AND MANAGEMENT**

ASC 088: FOUNDATIONS OF SOCIAL STATISTICS

DATE: Monday, 25th September 2017

TIME: 11.00a.m-1.00p.m

INSTRUCTIONS: ANSWER QUESTION ONE AND ANY OTHER TWO
QUESTION 1

- a) Define social statistics [4 marks]
- b) Distinguish between qualitative variables and qualitative data. [6 marks]
- c) Explain the main limitations of social statistics. [12 marks]
- d) Briefly explain the FOUR levels of measurement in social statistics. [8 marks]

QUESTION 2

- a) Differentiate qualitative and quantitative approaches to data analysis in social science research. [8 marks]
- b) The table below shows the number of rape cases that were reported in Kenyan provinces in 2012. Study it and answer questions that follow.

Number of rape cases by Province, 2012

Province	Number of Cases	Percent	Cumulative Percent
Central	4,658	11.5	11.5
Coast	3,564	8.8	20.3
Eastern	6,359	15.7	36.0
Nairobi	3,400	8.4	44.4
North Eastern	1,580	3.9	48.3
Nyanza	5,954	14.7	63.0
Rift Valley	10,044	24.8	87.8
<u>Western</u>	<u>4,941</u>	<u>12.2</u>	<u>100.0</u>
Total	40,500	100.0	100.0

- i) Calculate:
- The modal number of rape cases reported [2 mark]
 - The mean number of rape cases reported [6 marks]
- ii) What are your conclusions about the rape incidences in Kenya? [4 marks]

QUESTION 3

- a) Explain the term dispersion? [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

- What is the range of the age variable? [3 marks]
- Calculate the variance of the age. [6 marks]
- What is its standard deviation? [4 marks]
- What is your conclusion about the variability of the age variable? [4 marks]

QUESTION 4

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

QUESTION 5

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