



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2014/2015

DIGITAL SCHOOL OF VIRTUAL AND OPEN LEARNING

SECOND SEMESTER EXAMINATION FOR THE DIPLOMA IN CRIME

MANAGEMENT

ASC 088: FOUNDATIONS OF SOCIAL STATISTICS

DATE: Sunday 3rd May 2015

TIME: 8.00a.m -10.00a.m

INSTRUCTIONS

Answer question ONE and any other TWO questions.

1. a) Describe the following levels of management.
 - i) Nominal level of measurement [2marks]
 - ii) Ordinal level of measurement [2marks]
 - iii) Interval level of measurement [2marks]
 - iv) Ratio level of measurement [2marks]
- b) What is a graph and describe three types of graphs? [7.3marks]
- c) Define and describe the following concepts.
 - i) Population [2marks]
 - ii) Sample [2marks]
 - iii) Data [2marks]
 - iv) Variable [2marks]

2. a) Differentiate between descriptive and inferential statistics. [7.3marks]
b) The following data represents the range of performance of pupils in the 2014 KCSE exams.

Class	Frequency
76 - 80	2
71 - 75	2
66 – 70	4
61 - 65	5
56 - 60	8
51 - 55	10
46 - 50	10
41 – 45	11
36 - 40	9
31 – 34	6
26 – 30	7
21 - 25	4
16 - 20	5
11 - 15	2
Total	N=85

- i) Calculate:
- a. The mode mark [3marks]
 - b. The median mark [3marks]
 - c. The mean mark [5marks]
- ii) What is your conclusion of the overall performance? [5marks]
3. a) Explain the term variation? [3marks]

- b) The grouped data below represent the number of crimes committed in Nyeri Town.

Number of crimes	frequency
42 – 44	2
39 – 41	3
36 – 38	4
33 – 35	5
30– 32	3
27– 29	2
24– 29	1
	N=20

- i) Calculate the variance [4marks]
 - ii) Compute the standard deviation? [3marks]
 - iii) Determine the range [3marks]
 - iv) First and third quartile [3marks]
 - v) What is the inter quartile range [3marks]
 - vi) What is your conclusion about the variability of the crime? [3.3marks]
4. a) Describe the importance and disadvantages of mode, median and mean. [8marks]
- b) Highlight five main characteristics of a normal curve. [8marks]
- c) How would normal curve contribute to understanding the distribution of crime in a given location? [7.3marks]
5. a) What is hypothesis? [6marks]
- b) Briefly explain the main ways in which statistical data is presented. [8marks]
- c) Explain the significance of data exploratory data analysis? [9.3marks]