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# FACULTY OF EDUCATION AND SOCIAL SCIENCES DEPARTMENT OF PSYCHOLOGY, CRIMINOLOGY AND SOCIAL WORK 2013/2014 ACADEMIC YEAR 2<sup>ND</sup> YEAR 1<sup>ST</sup>SEMESTER EXAMINATION

# DIPLOMA IN SOCIAL WORK & COMMUNITY DEVELOPMENT

COURSE CODE: DSC 064

COURSE TITLE: SOCIAL STATISTICS

DATE:15<sup>TH</sup>AUGUST, 2014

TIME: 2:00P.M. – 4:00P.M.

**INSTRUCTIONS TO THE CANDIDATES** 

• ANSWER THREE QUESTIONS. *QUESTION ONE IS COMPULSORY* 

## **QUESTION ONE(Compulsory) - 30 MARKS** a) Explain the theory of statistics

a)	Explain the theory of statistics	(4 Marks)
b)	State and explain various measurement scales and show	how they affect data analysis

- ( 12 Marks)c) Social statistics has various applications in social science. Explain this statement using
- c) Social statistics has various applications in social science. Explain this statement using relevant examples
  (6 Marks)

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d)	Diffe	rentiate between	
	i)	Cluster sampling and stratified sampling	(2 Marks)
	ii)	Population and sample	(2 Marks)
	iii)	Parameter and statistics	(2 Marks)
	iv)	Descriptive statistics and inferential statistics	(2 Marks)

### **QUESTION TWO**

Social survey was conducted in Nakuru municipality to compare the proportional families with more than 4 children for different income categories. A random sample of 150 families was questioned and each classified into 3 income categories (under or less than 20,000; 20000 – 50,000; more than 50,000). The number of children were also recorded for each family and categorized as  $\leq$  4 children;  $\geq$  4 children.

Using the data given, determine the chi-square value.

> 20000	20000 - 50000	> 50000
11	13	21
68	28	9

### **QUESTION THREE (20 Marks)**

a) Using the grouped data below, calculate modal class, median and mean

Class ( x)	(f)
1-15	4
16-30	1
31-45	7
46-60	9
61-75	2
76-90	5
91-105	2

- (b) (i) Define the following terms
  - a) Range
  - b) Variance
  - c) Standard Deviation
  - (ii) Using the data below, calculate
    - a) Range
    - b) Variance
    - c) Standard Deviation

(x)	(f)
2	1
5	2
6	1
7	1
8	1

#### **QUESTION FOUR (20 Marks)**

A lecturer at Nairobi Institute of Open Learning administered statistics and research methods examination and obtained the results in the table below:-

Statistics	Research	Methods (y)
8.5	5.8	
4.3	3.6	
5.6	4.0	
2.2	1.5	
6.5	6.3	
8.2	7.5	
9.7	8.0	
1.0	2.2	
3.5	3.1	
5.0	3.0	

#### Required

a) Calculate XY (Co-oefficient of Determination)

#### **QUESTION FIVE**

- a) State and explain various things the researcher has to put in place before actual data collection exercise (12 Marks)
- b) What are the advantages of using primary data over secondary data (8 Marks)