



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF INFORMATICS AND INNOVATION SYSTEMS
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF BUSINESS
ADMINISTRATION (SUPPLY CHAIN OPTION)
3RD YEAR 1 SEMESTER 2013/2014 ACADEMIC YEAR
KISUMU LEARNING CENTRE**

COURSE CODE: SCS 324

COURSE TITLE: STATISTICAL ANALYSIS WITH SPSS

EXAM VENUE:

STREAM: (BBA (SUPPLY CHAIN OPTION))

DATE: 23/04/14

EXAM SESSION: 9.00 – 11.00 AM

TIME: 2.00 HOURS

Instructions:

- 1. Answer question 1 (Compulsory) and ANY other 2 questions**
- 2. Candidates are advised not to write on the question paper.**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room.**

QUESTION ONE 30 MARKS (COMPULSORY)

- a) For a successful survey, the following elements are some of the important considerations: intention, audience and sample size.
- i) Briefly describe each element, [3 Marks]
 - ii) State at least two factors or components considered in each element. [6 Marks]
 - iii) Explain how each factor considered contributes to the success of the survey (at least one from each element). [3 Marks]
- b) i) List at least six stages of data analysis process [3 Marks]
- ii) Briefly explain any four of the data analysis process. [6 Marks]
- c) How would establish the following in SPSS for 2 variables. In each case clearly mention the statistical procedure and the relevant statistics
- i. Differences [3 marks]
 - ii. Relationship [3 marks]
 - iii. Association [3 marks]

QUESTION TWO 20 MARKS

- a) Briefly explain the following three criteria needed to determine appropriate sampling size
- i) Confidence level,
 - ii) Degree of Variability and
 - iii) Level of Precision [6 marks]
- b) The following data represent different types of variables. Classify each one of them as measurable (continuous) or categorical. If a variable is categorical, further classify it as nominal or ordinal. Justify your answer. (No marks will be awarded without justification.) [8 marks]
- i. The education level for a number of employees from a company (elementary school, high school, university or postgraduate degree).
 - ii. The blood pressure from 30 hospital patients.
 - iii. The hair colour of 50 persons.
 - iv. The weights of 30 randomly selected cereal boxes.
- c) Survey errors can mainly be categorized into two. Identify the two categories; define and explain each of the categories [6 marks]

QUESTION THREE 20 MARKS

Use the SPSS output for Linear Regression tables below to answer the following questions.

- (a) Write down the linear regression equation indicating what each letter represents in the equation. {4 marks}
- (b) What is the value of the standard error of the estimate? {3 marks}
- (c) How many degrees of freedom are associated with the t-value for the line of regression? {4 marks}
- (d) What is the value of the correlation coefficient? {2 marks}
- (e) Confidence and Prediction Interval {3 marks}
- (f) What is the 95% confidence interval for the mean value of when $x = ?$ {2 marks}
- (g) What is the 95% prediction interval for when $x = ?$ {2 marks}

Coefficients

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig
	B	Std Error	Beta		
Constant	2.129	.250	0.941	8.505	.000
Additive	.338	.050		6.821	.000

Model Summary

Model	R	R Square	Adjusted R Square	Std Error of the Estimate	Durbin-Watson
1	.941	.886	.867	.32121	2.321

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig
1 Regression	4.801	1	4.801	46.532	.000
Residual	.619	6	.103		
Total	5.420	7			

QUESTION FOUR 20 MARKS

Use the sample questionnaire to answer questions BELOW

SAMPLE QUESTIONNAIRE

- a) Sex _____ male _____ female
- b) Age in years _____
- c) Education level (please indicate the highest level of schooling that you completed)
 _____ year 10 _____ year 12 _____ University or College _____ Post Grad _____
- d) Are you currently on a diet to loss weight _____ yes ___ no

Using the key 1 . Agree and 2. Disagree, Please indicate your opinion on the following statements

- e) ___ i have little control over things that happen to me
- f) ___ i can do just about anything i set my mind to do
- g) ___ there's really no way i can solve some of the problems i have
- h) ___ there's little i can do to change many of the important things in my life
- i) ___ what happens to me in the future mostly depends on me
- j) ___ I often feel helpless in dealing with problems of life
- k) ___ sometimes i feel that am being pushed around in life

- a) Outline the steps one would undertake to prepare a data entry screen and prepare a codebook for the sample questionnaire provided above detailing each of the variable names and codes to be used to prepare the data for entry in SPSS [8 marks]
- b) With respect to normality discuss skewness and kurtosis illustrating your answer with sketches [8 marks]
- c) Survey errors can mainly be categorized into two. Identify the two categories; define and explain each of the categories [4 Marks]

QUESTION FIVE 20 MARKS

- a) You can use SPSS products for analysis of any of the following: Survey research of all types, Marketing and sales analysis and Research of all types. Enumerate at least three

key points that will be the outcome of using SPSS tool for the analysis of each the three areas. [9 Marks]

b) Briefly explain the following terms as they are applied in SPSS. Give a stepwise access procedure of each these items in SPSS. [9 Marks]

i) Frequency distributions

ii) Descriptive procedures

iii) Cross-tabulation

c) Briefly explain the term Regression as applied in SPSS. [2 Marks]