



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR IN BUSINESS
/EDUACTION ARTS
3RD YEAR 2ND SEMESTER 2014/2015 ACADEMIC YEAR
SPECIAL RESIST
MAIN CAMPUS

COURSE CODE: SCS 324

COURSE TITLE: STSTITICAL ANALYSIS WITH SPSS

EXAM VENUE: LAB 1

STREAM:

DATE: 06/05/16

EXAM SESSION: 9.00 – 11.00 AM

TIME: 2.00 HOURS

INSTRUCTIONS:

- 1. Answer Question 1 (Compulsory) and ANY other two 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]

- a) Explain **THREE** ways of accessing a new SPSS data file [3 marks]
- b) Discuss the features of Data view of SPSS [7 marks]
- c) Give **SIX** rules that must be followed when selecting variable names [6 marks]
- d) Discuss **FOUR** scales of measurements as used in SPSS [4 marks]
- e) Compare and contrast associational, difference and descriptive types of research items [6 marks]
- f) Distinguish between the **FOUR** SPSS windows (4 marks)

QUESTION TWO [20 MARKS]

- a) A researcher is interested in assessing the impact of a number of changes in a factory on the job satisfaction of workers. Before the changes are implemented the researcher distributes a questionnaire to a sample of workers which measures their attitudes to their work and their overall job satisfaction. The same questionnaire is distributed to the same group of workers one month after the workplace changes were implemented, and again three months later.
 - i) Which parametric statistical technique could the researcher use to see if workers' job satisfaction levels had changed across the three time periods measured? Briefly justify your answer. [4 marks]
 - ii) What non-parametric technique (if any) could be used to explore this question? [2 marks]
- b) Briefly describe the four scales of measurements outlining their similarities and differences. [6 marks]
- c) State the two areas where scatter plots can most appropriately be used to produce relevant results. [4 marks]
- d) Explain two difference between inferential statistics and descriptive statistics [4 marks]

QUESTION THREE [20MARKS]

- a) Define Analysis of Variance [1 mark]
- b) Discuss **Four** applications of One Way ANOVA [4 marks]
- c) Discuss **SIX** steps necessary for the determination of mean difference using One Way ANOVA [9 Marks]

- d) Discuss **FOUR** types of Post Hoc testing done if means or group of means is/are found to be significantly different from the others [6 marks]

QUESTION FOUR [20MARKS]

A behavioural scientist wishes to develop a model that would help to predict dating violence among University students in Kenya. The data in problem contained the following risk factors variables used in the analysis.

- Childhood witness of family violence*
- Childhood experience of family violence*
- Financial and material exchange*
- Alcohol use*
- Anger expression*
- Verbal expression*

After data analysis, the Behavioural scientist obtained the following SPSS outputs:

Model Summary

Model	R	R Square
1	.729	.531

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	39.49	39.1		1.01	.314
1 Childhood witness of family violence	7.09	2.56	.226	2.766	.007
Childhood experience of family violence	0.038	0.015	.200	2.561	.012
Financial and material exchange	18.47	6.99	.189	2.64	.010
Alcohol use	0.902	.729	-0.093	-1.237	.219
Anger expression	35.861	7.644	.358	4.691	.000
Verbal expression	.277	1.901	.060	.146	.886

- a) State the null and Alternative hypothesis for the study [6marks]
- b) Complete the regression equation for the given output and explain its key elements [4 marks]
- c) Write an elaborate report based on the SPSS output given above [6 marks]
- d) What are the advantages of using regression analysis over use of correlation analysis [4 marks]

QUESTION FIVE [20 MARKS]

A researcher conducted a study to determine the impact of exposure to screen violence among school going children on their actual violent behaviours in school. The figure below summarizes the findings.



- i) Identify the statistical tool that was used by the researcher. [2 marks]
- ii) What would be your conclusion from the results shown in the figure? Comment on the strength of the relationship, Association, outliers and groupings. [6 marks]
- b) Briefly explain two major differences between Chi-Square test and regression analysis as used in SPSS [4 marks]
- c) Discuss the significance of performing multiple regressions stating any four the assumptions that can be made during the exercise. [8 marks]