UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER 2006

TITLE OF PAPER

STATISTICAL DATA PROCESSING

COURSE CODE

ST206

TIME ALLOWED

2 (TWO) HOURS

REQUIRMENTS

NONE

INSTRUCTIONS

ANSWER ANY 4 (FOUR) QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS.

THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR

QUESTION ONE.

[10 + 15 marks]

1.1 Complete the following table by giving one example (variable name) for each cell:

Туре	Nominal	Ordinal	Interval
Discrete			
Continuous			

Choose any 2 variables from your answer from the above table and explain how you can transform those to a lower measurement scale variable.

1.2	Supp	Suppose you conducted a survey which considers many questions including the following:				
	Q1.	Write your Personal Identification Number				
	Q2.	Your Date of Birth				
	Q3.	What type of job are you in now?		•		
	Q4.	Your monthly earnings from all sources:	() Less than E1,000		
			() Between E1,000 and E5,000		
			() Over E5,000		
	Q5.	What type of educational qualification do you have?				
	For e	For each of these five questions, answer the following:				
	a.	Name the variable you can extract from the question.				
	b.	List some or all the possible values of that variable.				
	c.	State the measurement scale to use for that variable.				

QUESTION TWO.

[5 + 10 + 10 marks]

- 2.1 Discuss the main purposes of Data Processing.
- 2.2 List the five types of information we usually collect when a questionnaire was used in the data collection process. Discuss these processes with examples.
- 2.3 Discuss, briefly, the five reasons that encourage researchers to adopt items from other studies.

QUESTION THREE.

[15 + 10 marks]

- 3.1 You know that the role of the measurement scales is very important when applying the various analysing techniques. Assume that you finished the data collection job of your Research Project which includes the data of all the four types of measurement scale. Discuss the use of various appropriate graphs and tables to present the data for your Project.
- 3.2 The Exploratory Data Analysis approach relies heavily on graphical techniques. State some of the insights of a data set which one can gain though the EDA approach. Use different hypothetical scatter plots as examples and list all that a data set could suggest.

QUESTION FOUR.

[15 + 10 marks]

- 4.1 State the name of three factors which affect the data analysis methods. Briefly explain how they affect the analysing methods of the data.
- 4.2 Discuss the similarities and differences between *multiple dichotomy method* and *multiple response method* when dealing with multiple responses to closed-ended questions.

QUESTION FIVE.

[20 marks]

Discuss the following pairs of terms:

- 5.1 Mathematical Model and Measurement Model.
- 5.2 Univariate Analysis and Bivariate Analysis.
- 5.3 Nominal Variables and Categorical Variables.
- 5.4 Data Collection and Data Processing.
- 5.5 Coding and Codebook.