

UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER 2008

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 at least one example (variable name) for each cell:

Type	Nominal	Ordinal	Interval	Ratio
Discrete				
Continuous				

Choose any two variables from your answers in the above table and explain how you can transform those to categorical variables.

1.2 Suppose you conducted a survey which considers many questions including the following:

Q1. Do you have a cell phone?

Q2. If you have one, write

a. the cell phone number.

b. the brand name of the phone.

c. the number of calls you make in a week.

d. your monthly spending for this phone.

Prepare a Code-Book for the above questions.

QUESTION TWO.

[15 + 10 marks]

2.1 “Where respondents provide several responses to a closed-ended question, the best method of coding is to develop a set of variables to represent those responses”. There are two approaches for developing those variables. Discuss these two methods using a model example.

2.2 State and discuss the different data checking procedures to minimize the errors in entering data on to the computer.

QUESTION THREE.

[15 + 10 marks]

- 3.1 Assume that you have a data set which contains all types of variables. Discuss the use of various appropriate graphs and tables to present the data.
- 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 through the EDA approach. Use different hypothetical scatter plots as examples and list all that a data set could suggest.

QUESTION FOUR.

[5 + 10 + 10 marks]

- 4.1 State the different steps of data processing.
- 4.2 State the five types of information we usually collect when a questionnaire was used in the data collection process. Discuss with examples.
- 4.3 Discuss the different reasons that encourage researchers to adopt items from other studies.

QUESTION FIVE.

[25 marks]

Discuss the following pairs of terms:

- 5.1 Exploratory Data Analysis and Classical Data Analysis.
- 5.2 Observation and Records in data collection.
- 5.3 Univariate Analysis and Bivariate Analysis.
- 5.4 Discrete Variables and Continuous Variables.
- 5.5 Data Collection and Data Processing.