

UNIVERSITY OF SWAZILAND



MAIN EXAMINATION PAPER 2011

TITLE OF PAPER : STATISTICAL DATA PROCESSING

COURSE CODE : ST 206

TIME ALLOWED : TWO (2) HOURS

INSTRUCTIONS : ANSWER ANY THREE QUESTIONS.

Question 1

Appendix A is Section A of the questionnaire that was used in the Swaziland's Health Care Sector Job Contentment and Retention Survey. A nationwide face to face interview survey of staff in a random sample of public and private health establishments/facilities in Swaziland was carried out between the periods of March, 2007 – April, 2007. The aim of the study was to evaluate the impact non-financial incentives on the retention of health workers.

- a) Was the use of a pre-coded questionnaire justified for this study? (10 Marks)
- b) How do you think the coding process was carried out for this study? (10 Marks)

Question 2

- a) Below is sample of 10 responses to Section A of the questionnaire (APPENDIX A), in ASCII flat format, extracted from the dataset for this survey.

```
212111412
113124211
215144311
214144412
213143411
124341311
215144321
113343311
215144311
214344322
```

Draft an SPSS Syntax program that can be run and open the data in the Data Editor with variable and value labels.

(10 Marks)

- b) Draft an appropriate file format for a dataset based on the Section A of the questionnaire in APPENDIX A. (10 Marks)

Question 3

- a) Outline the purpose of editing and the basis for editing rules in survey data processing. (5 Marks)
- b) Suggest a *selective editing* approach to be done on the dataset from the survey questionnaire in APPENDIX A. (5 Marks)
- c) Outline the guidelines for editing that were supposedly followed in the Swaziland Health Care Sector Job Contentment and Retention Survey. (10 Marks)

Question 4

Recommend and describe four appropriate *deterministic imputation methods* to an agency that wants to do a national household survey in Swaziland.

(20 Marks)

APPENDIX A

A1. Background

The questions are designed to provide a background summary of the staff taking part in this survey. Keep in mind that no one other than the researchers will have access to the information you provide here. (Please tick one option for each question).

1. **Gender**
Male ¹
Female ²
2. **What section do you work in?**
Management/administration ¹
Direct Service ²
3. **What is your age?**
20-30 ¹
31-40 ²
41-50 ³
>51 ⁴
4. **Job status**
Full-time ¹
Part-time/Casual ²
Contract personnel ³
5. **How long have you been working in the Health Care Sector?**
< 12 months ¹
1-3 years ²
4-7 years ³
> 7 years ⁴
6. **How long have you been employed with your current institution?**
< 12 months ¹
1-3 years ²
4-7 years ³
> 7 years ⁴
7. **What Industrial Agreement are you employed under?**
Award ¹
Certified Agreement ²
Individual Contract ³
Other ⁴
8. **Do you receive Fringe Benefits¹?**
Yes ¹
No ²
9. **Do you have an annual performance appraisal?**
Yes ¹
No ²