

UNIVERSITY OF ESWATINI

FINAL EXAMINATION PAPER YEAR 2018

**COURSE TITLE: COLLECTION AND
ASSESSMENT OF
DEMOGRAPHIC DATA**

COURSE NUMBER: DEM 213

TIME ALLOWED: 2 (TWO) HOURS

**INSTRUCTIONS: ANSWER QUESTION 1 AND
ANY 2 (TWO) QUESTIONS**

SPECIAL REQUIREMENTS: NONE

Question 1

In the adjustment of age and sex data the United Nations (UN) three point/five point smoothing formulae or Newton's Halving formula (Quadratic Interpolation) may be used. Discuss fully the two methods

[20 points]

Question 2

- a) The components of the Balancing Equation make it both inaccurate and an unreliable method of estimating population change and measuring errors in census estimates. Discuss why this is the case.

[12 points]

- b) What are Post Enumeration Surveys and how are they employed to help detect errors in data.

[8 points]

Question 3

- a) The UN Joint Score Index in essence combines a vertical and a horizontal method of data consistency check. Explain how this index does this.

[10 points]

- b) The Whipples Index is a very crude method of measuring digit preference compared to the Digit preference Index. Show how.

[10 points]

Question 4

- a) When a data set is presented in single years one of the methods of smoothing the data is by grouping it into 5-year age groups. How do this result in reducing errors in the data set.

[10 points]

- b) When detecting errors in data, internal consistency check can be used, then vertical and horizontal consistency checks employed. Explain the meaning of the statement

[10 points]

Question 5

The Myers Blended Index is an improvement over the Digit Preference index in the measurement of Age misreporting. Discuss how.

[20 points]