

# UNIVERSITY OF SWAZILAND

## FINAL EXAMINATION PAPER YEAR 2017

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

**COURSE NUMBER:    DEM 213**

**TIME ALLOWED:     2 (TWO) HOURS**

**INSTRUCTIONS:     Answer ALL Questions in  
Section A and any 1 (one  
Question in Section B**

**SPECIAL REQUIREMENTS:    CALCULATOR**

## SECTION A

### Question 1

- a) Using the attached data sheet calculate the Digit Preference Index  
[15 points]
- b) Using the attached data sheet calculate the Myers Index  
[15 points]

### Question 2

In the calculation of Age Ratios, the UN, Zelnik and Ramachandran methods may be used. Discuss fully these methods emphasizing the rationale for their formulation [20 points]

## SECTION B

### Question 3

- a) Why is population data presented preferably in age groups rather than in single years?  
[6 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  
[14 points]

### Question 4

- a) Given accurate Births (B), Deaths (D), Immigrants (I), Emigrants (E) and Population initial (P1) show how you can use the Balancing Equation to estimate the accuracy of a census count at a later date (P2)  
[14 points]
- b) What are Post Enumeration Surveys and how are they employed to help detect errors in data.  
[6 points]

### Question 5

- a) How do content and coverage errors overlap? [4 points]
- b) Pre-coding may lead to errors. Using an example show how.  
[4 points]
- c) Using any one method explain what are moving average methods.  
[12 points]

## DATA SHEET

DIGIT	10-19	20-29	0-39	40-49	50-59	60-69	10-59	10-69	20-69
0	188 801	142 023	136 241	96 500	79 396	63 302			
1	115 176	81 261	40 385	23 133	17 196	8 333			
2	190 396	97 078	84 163	52 998	33 161	15 594			
3	135 373	71 481	38 831	27 442	16 927	8 907			
4	145 076	92 147	52 062	25 969	26 575	11 604			
5	157 714	118 513	96 661	94 793	36 053	36 522			
6	137 661	82 397	57 983	30 616	26 807	7 490			
7	102 437	81 995	39 741	23 999	13 647	7 988			
8	146 944	94 780	54 478	43 084	19 766	12 457			
9	91 843	55 900	33 490	24 727	10 811	6 049			