



**NAMIBIA UNIVERSITY  
OF SCIENCE AND TECHNOLOGY**

**FACULTY OF HEALTH, NATURAL RESOURCES AND APPLIED SCIENCES**

**DEPARTMENT OF MATHEMATICS AND STATISTICS**

<b>QUALIFICATION:</b> Bachelor of science in Applied Mathematics and Statistics	
<b>QUALIFICATION CODE:</b> 07BSAM	<b>LEVEL:</b> 6
<b>COURSE CODE:</b> DEM602S	<b>COURSE NAME:</b> DEMOGRAPHY
<b>SESSION:</b> JANUARY 2023	<b>PAPER:</b> THEORY
<b>DURATION:</b> 3 HOURS	<b>MARKS:</b> 80

**SUPPLEMENTARY / SECOND OPPORTUNITY EXAMINATION QUESTION PAPER**

<b>EXAMINER</b>	Mr. ROUX, A.J
<b>MODERATOR:</b>	Mr SWARTZ, J

**INSTRUCTIONS**

1. Answer ALL the questions in the booklet provided.
2. Show clearly all the steps used in the calculations.
3. All written work must be done in blue or black ink and sketches must be done in pencil.

**PERMISSIBLE MATERIALS**

1. Non-programmable calculator without a cover.

**THIS QUESTION PAPER CONSISTS OF 3 PAGES (Including this front page)**

QUESTION 1 [10]

The demographic perspective influences the way people understand and interpret questions involving populations. Briefly discuss any one of the three commonly used (the Malthusian perspective, the Demographic Transition model, and the Marxist perspective) demographic perspectives.

QUESTION 2 [ 30 ]

2.1) Define the following terminologies

- 2.1.1) Demography (2)
- 2.1.2) Population composition (2)
- 2.1.3) Natural population growth (2)
- 2.1.4) Life expectancy (2)
- 2.1.5) Population pyramid (2)

2.2) Distinguish between

- 2.2.1) Population characteristics and population processes (6)
- 2.2.2) Absolute and the relative size of a population (2)

2.3) Name and briefly discuss ( any four ) of the most commonly used indices for measuring mortality. (4 x 3 = 12)

QUESTION 3 [17]

3.1) Define the term "Nuptiality" in demography (3)

3.2) Distinguish between "age/sex – specific" marriage rate and "order-specific" marriage rate." (2 x 2 = 4)

3.3) The total number of marriages (  $M = 575\,246$  ) and the midyear population (  $P = 2\,052\,460$  ) as well as the midyear population of marriageable persons (  $P_{15+} = 1\,505\,684$  ) are given. Use  $c = 1\,000$ .

3.3.1) Calculate and interpret the crude marriage rate for this population (5)

3.3.2) Calculate and interpret the general marriage rate for this population(5)

QUESTION 4 [23]

- 4.1) Provide three sources of data on international and internal migration. (3)
- 4.2) State and explain all the variables in an equation which can be used to calculate any "Age-Specific" migration rate. (5)
- 4.3) According to Petersen (1958, 1975) typology distinction was made between five types of migration. Provide and describe these five types of migration, and give relevant example to illustrate the concept. ( 3 x 5 = 15 )

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