



**NAMIIBIA UNIVERSITY  
OF SCIENCE AND TECHNOLOGY**

**FACULTY OF NATURAL RESOURCES AND SPATIAL SCIENCES**

**DEPARTMENT OF ARCHITECTURE AND SPATIAL PLANNING**

<b>QUALIFICATION CODE: BACHELOR OF TOWN AND REGIONAL PLANNING</b>	
<b>COURSE CODE:</b> DPS610S	<b>COURSE NAME:</b> DEMOGRAPHY AND POPULATION STUDIES
<b>SESSION:</b> JUNE 2019	<b>PAPER:</b> THEORY
<b>DURATION</b> 3 HOURS	<b>MARKS:</b> 100

<b>FIRST OPPORTUNITY EXAMINATION QUESTION PAPER</b>	
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<b>INSTRUCTIONS</b>
<ol style="list-style-type: none"><li>1. Answer ALL the questions.</li><li>2. Write clearly and neatly.</li><li>3. Number the answers clearly.</li></ol>

**PERMISSIBLE MATERIALS**

1. Calculator
2. Pen
3. Pencil
4. Eraser
5. Ruler

**THIS QUESTION PAPER CONSISTS OF 4 PAGES (Including this front page)**

**Question 1**

- (a) A way of looking at changes in population composition is through population pyramids. Differentiate between constrictive and expansive population pyramids, by providing pyramids sketches. (12)
- (b) Census and surveys are two sources of demographic data. Formulate a table comparing census to surveys. (10)

**[22]****Question 2**

The central government has availed some funds for the mass land servicing. However, due to budgetary constraints, these funds are to be allocated only to one of the towns listed in Table 1 below, being the town with the highest population growth rate. Therefore, study Table 1 below and answer the proceeding questions.

Table 1: Total Population Size

Town	Year 2011	Year 2016
Town A	86,856	97,865
Town B	79,507	87,186
Town C	245,446	255,510

- (a) In accordance with the central government's funding criteria and population geometric growth rate, indicate the formula that you will use in determining which town should be allocated with those funds. (2)
- (b) Using the formula you indicated in Question 2(a) above and the data in Table 1 above, demonstrate the population geometric growth rates in percentages, for the towns outlined in Table 1. Please show all calculation steps and round off the geometric growth rate percentages to one decimal point. (9)
- (c) Based on the population geometric growth rate percentages you demonstrated in Question 2(b) above, and the central government's allocation criteria, determine the town which should be allocated with the funds for mass land servicing. (1)
- (d) Population projections help stakeholders to plan for the near and distant future. Using the geometric extrapolation model and geometric growth rate you provided in Question 2(b), project what will be the population size of Town B in 2025. (3)

**[15]**

**Question 3**

- (a) It is important to analyse the population or demographic profile of an area during the planning process. Explain, in seven brief statements, why it is essential for urban planners in the public sector to consider population analyses. (7)
- (b) Businesses use population and demographic data to identify profitable locations for goods and services. Pinpoint three ways through which the private sector can identify profitable locations for goods and services. (3)
- (c) You have been appointed as a Public Health Planner at the Ministry of Health. Discuss the steps that you will follow to ensure that health facilities are equitably allocated in Region X. (10)
- (d) Data forecasts, including population projections, are used in the planning process and location of various public facilities. Explain briefly why it is difficult to investigate professional ethics in planning data forecasts. (4)

**[24]****Question 4**

- (a) Crude Birth Rate (CBR) is the number of births occurring in a population in a year per 1,000 persons. Pinpoint two (2) disadvantages of using Crude Birth Rate. (2)
- (b) A funeral director would like to establish a crematorium in one of the two cities in your region. Using the data in Table 2 below and the mortality measure that considers all deaths, motivate through calculations, which city in Table 2 below should be considered as a suitable location for the proposed crematorium. Please show the formula and round off your answers to the nearest whole number. (10)

Table 2: Population, and Reported Births and Deaths in Cities 1 and 2

Region	Population	Total Deaths	Male Deaths	Female Deaths
City 1	74,629	1,454	922	532
City 2	249,885	2,859	1,677	1,182

**[12]**

**Question 5**

- (a) According to a certain population theory, as technology advances in various fields, birth and death rates shift, directly impacting the population numbers and growth rates. Demonstrate this theory in a graphic format. (13)
- (b) One theorist analysed the prevailing situation in different countries, as part of his essay titled "An Essay on the Principle of Populations as it affects the Future Improvement of Society." Critique, in ten (10) statements, the theorist's perspectives on population. (10)
- (c) International migration can be explained through various theories. Identify four (4) theories that explain international migration. (4)

**[27]**

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**TOTAL MARKS****100****END**