



**NAMIBIA UNIVERSITY**  
OF SCIENCE AND TECHNOLOGY

**FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT**

**DEPARTMENT OF ARCHITECTURE, PLANNING AND CONSTRUCTION**

<b>QUALIFICATION: BACHELOR OF TOWN AND REGIONAL PLANNING</b>	
<b>QUALIFICATION CODE: 07BTAR</b>	<b>NQF LEVEL: 6</b>
<b>COURSE CODE: DPS610S</b>	<b>COURSE NAME: DEMOGRAPHY AND POPULATION STUDIES</b>
<b>DATE: JUNE 2025</b>	<b>PAPER: THEORY</b>
<b>DURATION: 3 HOURS</b>	<b>MARKS: 100</b>

<b>FIRST OPPORTUNITY EXAMINATION QUESTION PAPER</b>	
<b>EXAMINER</b>	Dr J. Kohima
<b>MODERATOR</b>	Prof E. Yankson

<b>NOTES:</b>
<ol style="list-style-type: none"><li>1. Read the entire question paper before answering the questions.</li><li>2. You must answer all questions.</li><li>3. Please number your answers correctly in an orderly manner.</li><li>4. Please write clearly and legibly.</li><li>5. Ensure your Student Number is on the Examination Book(s).</li></ol>

**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. (8)
- (b) You are provided with Table 1 below. Demonstrate, in seven statements, what is represented by Table 1 below. (7)

**Table 1**

Age(x)	Width(n)	$nMx$	$nax$	$nqx$	$l_x$	$ndx$	$nLx$	$T_x$	$e_x$
0	1	0.04547	0.18	0.04384	100 000	4 384	96 412	5 694 838	56.9
1	4	0.00658	1.66	0.02592	95 616	2 479	376 668	5 598 427	58.6
5	5	0.00201	2.50	0.00999	93 137	930	463 362	5 221 759	56.1
10	5	0.00169	2.50	0.00841	92 207	775	459 099	4 758 397	51.6
15	5	0.00266	2.50	0.01321	91 432	1 208	454 140	4 299 298	47.0
20	5	0.00478	2.50	0.02363	90 224	2 132	445 790	3 845 158	42.6
25	5	0.00778	2.50	0.03817	88 092	3 363	432 054	3 399 368	38.6
30	5	0.01192	2.50	0.05789	84 730	4 905	411 384	2 967 313	35.0
35	5	0.01324	2.50	0.06407	79 824	5 114	386 335	2 555 929	32.0
40	5	0.01499	2.50	0.07224	74 710	5 397	360 058	2 169 594	29.0
45	5	0.01580	2.50	0.07598	69 313	5 266	333 401	1 809 535	26.1
50	5	0.01666	2.50	0.07998	64 047	5 123	307 428	1 476 135	23.0
55	5	0.02059	2.50	0.09793	58 924	5 770	280 196	1 168 706	19.8
60	5	0.02670	2.50	0.12517	53 154	6 653	249 137	888 510	16.7
65	5	0.03243	2.50	0.14998	46 501	6 974	215 069	639 373	13.7
70	5	0.05198	2.50	0.22999	39 527	9 091	174 906	424 304	10.7
75	5	0.08270	2.50	0.34267	30 436	10 429	126 106	249 398	8.2
80+		0.16227	6.16	1.00000	20 006	20 006	123 292	123 292	6.2

Source: Namibia Statistics Agency, 2014

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**Question 2**

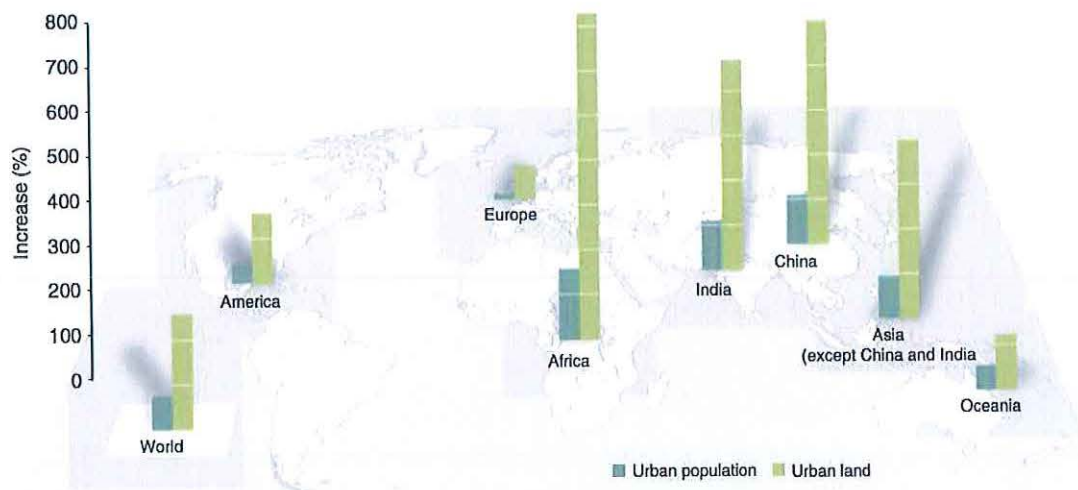
- (a) Using the demographic balancing equation as shared during Guest Lecture on "Population Projections Methods" calculate the 2021 population of the two regions. Show the formula and all the calculations. (15)
- In 2011, **Oshana Region** had a population of 161,916. Between 2011 and 2021, there were 47,100 births and 13,400 deaths in the region. 8,200 people moved into Oshana, and 15,000 people moved away.
  - In the same period, **Khomas Region** had a population of 340,471. There were 79,600 births and 20,800 deaths. 215,000 people moved into Khomas, while 171,000 people moved away.

- (b) Population projections can be classified into objective and subjective projections. Distinguish between objective and subjective projections, by offering three facts about each projection. (6)

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### Question 3

- (a) Population data can be analysed using various methods such as accessibility indexes. Distinguish between the two accessibility indexes that are widely used, by providing two facts about each index. (6)
- (b) Discuss the apartheid South African programme that resulted in the forceful resignation of South Africa from the International Planned Parenthood Federation in 1987. (7)
- (c) Urban population growth has various consequences on the environment. According to Fragkias, et al. (2013), the urban population in Africa is projected to increase by 160% before 2030. Discuss briefly, in seven statements, the adverse impacts of this increase of urban population, on the environment, associated only with [Figure 1](#) below. (7)



**Figure 1**

*Fragkias, et al., 2013*

- (d) Population analyses are important in both public and private sectors. Explain briefly, in four statements, why it is important to consider population analyses in the private sector. (4)

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**Question 4**

- (a) A certain population theorist stipulated that there are two possible checks that could limit population growth. Compile a table distinguishing these two checks. (10)
- (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) An established population theory was criticised for not explaining the phenomenon of "the baby boom" in Western countries after the Second World War. Based on the critiques, the theory was reformulated, and subsequently reinterpreted as a set of interrelated transitions. Determine the five interrelated transitions of the reformulated theory. (5)
- (d) There are various population theories. Discuss, in five sentences, the prepositions of the theory criticised for applying a law of diminishing returns to a period of time. (5)

**[30]****Question 5**

- (a) International migration can be explained through various theories. Identify two (2) theories that explain international migration. (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. (8)

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

**[10]****TOTAL MARKS = 100**