



**PAMIBIA UNIVERSITY**  
OF SCIENCE AND TECHNOLOGY

**FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT**

**DEPARTMENT OF ARCHITECTURE, PLANNING AND CONSTRUCTION**

<b>QUALIFICATION:</b> BACHELOR OF TOWN AND REGIONAL PLANNING	
<b>QUALIFICATION CODE:</b> 07BTAR	<b>NQF LEVEL:</b> 6
<b>COURSE CODE:</b> DPS610S	<b>COURSE NAME:</b> DEMOGRAPHY AND POPULATION STUDIES
<b>DATE:</b> JULY 2024	<b>PAPER:</b> THEORY
<b>DURATION:</b> 3 HOURS	<b>MARKS:</b> 100

<b>SECOND OPPORTUNITY/ SUPPLEMENTARY EXAMINATION QUESTION PAPER</b>	
<b>EXAMINER</b>	Ms. J. Kohima
<b>MODERATOR</b>	Dr. 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. Ensure you number your answers correctly.</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 5 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**

The population of Namibia for 2016 and 2023 is listed in the table below:

Table 1: Namibia Population: 2016 & 2023

Year	Population
2016	2,324,388
2023	3,022,401

- (a) Assuming a constant growth rate and using the figures in Table 1 above, calculate the geometric annual growth rate in percentage. Please show the formula and all calculation steps and round of your answers to two decimal points. (5)
- (b) Using the geometric growth model and the data in Table 1 above, find out what Namibia's population will be in 2030. Round off to the nearest whole number. (5)

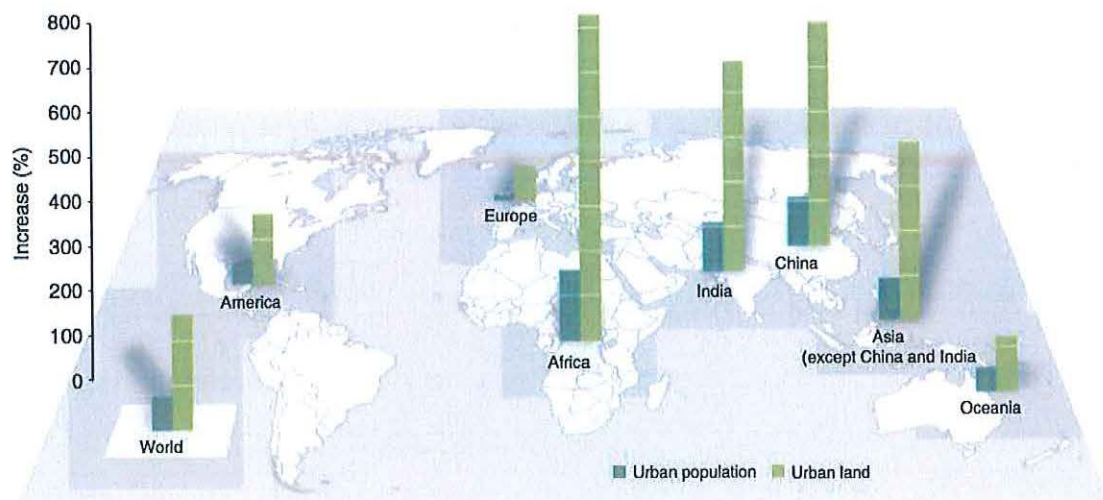
- (c) Population projection can be classified into two classes.
- (i) Identify the projection class that urban planners are advised not to rely on. (1)
  - (ii) Explain briefly, in two sentences, why urban planners are not encouraged to use the projection class you identified in Question 1(c)(i). (2)
- (d) The central government is offering grants for one public bus for each growing settlement, with an estimated population of 10,000 or more by 2030. You have been instructed by your mayor to estimate the number of people who will be in your settlement in 2030, in order to enable your settlement to apply for that grant. Based on your estimation, the population of your settlement will decrease from 2,500 to 1,500 in 2030.
- The mayor was not happy with your projections, and subsequently informed you that you should change the population projections to reflect that your settlement will have over 10,000 people by 2030; in order to secure the central government grant for the public bus. The mayor further threatened that he will bring you down through your Chief Executive Officer if you did not change the population projections.
- (i) From an ethical approach, indicate if you will decide to change or not change the population projection figures. (1)
  - (ii) Motivate the decision you provided in Question 2(d)(i), in seven brief statements. (7)

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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 three 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

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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)

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**Question 5**

- (a) International migration can be explained through various theories. Identify four (4) theories that explain international migration. (4)
- (b) Migration measures compare one's state of birth with one's place of residence at the time of enumeration. Differentiate between the five migration measures. (10)

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**TOTAL MARKS = 100**