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QUALIFICATION : BACHELOR OF SCIENCE IN APPLIED MATHEMATICS AND STATISTICS	
QUALIFICATION CODE: 07BSAM	**LEVEL**: 6
COURSE: DEMOGRAPHY	**COURSE CODE**: DEM602S
DATE: NOVEMBER 2024	SESSION: 1
DURATION: 3 HOURS	**MARKS**: 100

FIRST OPPORTUNITY: QUESTION PAPER

EXAMINER: **Mr. Simon Pombili Kashihalwa**

MODERATOR: Mr Jan Swartz

INSTRUCTIONS:

1. Answer all questions on the separate answer sheet.
2. Please write neatly and legibly.
3. Do not use the left side margin of the exam paper. This must be allowed for the examiner.
4. No books, notes and other additional aids are allowed.
5. Mark all answers clearly with their respective question numbers.

PERMISSIBLE MATERIALS:

1. Non-Programmable Calculator

ATTACHEMENTS

1. None

This paper consists of 3 pages including this front page.

NAMIBIA UNIVERSITY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF MATHEMATICS,STATISTICS AND ACTUARIAL SCIENCE
DEMOGRAPHY: DEM602S

First Opportunity Examination

DATE: November 2024

Examiner: Mr Pombili Kashihalwa

Moderator: Mr Jan Swartz

DURATION: 3 HOURS

Note: *This Examination consists of* ***TWO pages*** *with* ***Questions***

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1. Describe briefly the following concepts as they are applied in Demography:
   (i) Fecudity [2]
   (ii) Nomadism [2]
   (iii) Nuptiality [2]
   (iv) Stationary population [2]

2. According to NSA last Census(31 March 2024) Namibia population is 3,030,131,an increase of 420 131 compared to 2023 population, the estimates for 2024 is as follow,deaths 60 000,Births 300 000, Immigrants 36 000, Emigrants 15 000, use this information to answer the following questions
   (i) How long will it takes for the population to double [6]
   (ii)Estimate the population at 31 March 2025 [4]

3. One of the best-known topologies of mobility is that of Zopf(1984), briefly describe the six types of mobility according to this typology. [12]

4. List four "non-proximate" determinants of migration as studied in demography. [4]

5. Differentiate between Population projection and Population estimates. [4]

6. Study the table below and answer the questions that follows.

Age category	Population	Births	Immigrants	Emigrants	Marriage	Woman	Deaths
0-14	100 000	1655	1650	1400	5	160	1650
15-25	98345	818	880	600	13000	165	816
25-30	96963	686	700	300	11000	47000	687
30-35	94948	1254	1300	1000	9000	95 000	1250
35-40	92252	2183	2200	1200	12000	65000	2180
45-49	87080	4702	4600	33000	12500	25000	4700
50-55	54584	12997	12800	9000	11900	46000	12900
56-60	41587	13703	11000	8000	7500	28000	1300

Population of 0-4 is 11 000.

(i) Calculate the general fertility rate [4]

(ii) Compute the age specific net migration [8]

(iii) Calculate total fertility rate for the following age category,15-25,35-40 and 45-49 [6]

(iv) Estimate the age standardized fertility rate for the following age category,15-25,35-40 and 45-49 [9]

(v) Estimate the age standardized marriage rate for the following age category,15-25,35-40 and 45-49 [9]

(vi) Estimate the age standardized migration rate for the following age category,15-25,35-40 and 45-49 [9]

(vii) Estimate the sex/age standardized marriage rate [9]

(viii) Calculate the general marriage rate [3]

(ix) Estimate the crude gross migration [3]

(xi) Work out the Child Woman ratio [2]

Total: 100 marks