

THE UNIVERSITY OF ZAMBIA
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES
POPULATION STUIDES DEPARTMENT

DEM 2110: SOURCES AND MEASURES OF DEMOGRAPHIC DATA END OF YEAR EXAMINATION
INSTRUCTIONS: ANSWER ALL QUESTIONS IN SECTION A AND B AND TWO QUESTIONS IN SECTION C
(SECTION A IS COMPULSORY)
TIME ALLOWED: THREE HOURS

SECTION A (ANSWER ALL QUESTIONS) (6 MARKS)

1. Static data comes from population registration system **True False (1 MARK)**
2. Flow data comes from population census **True False (1 MARK)**
3. If a population of 1000 people contained 300 women who were of child bearing age and ten of them had a baby in a particular year, the crude birth rate would be **(1 MARK)**
 - a) 10 births per 1000 population
 - b) 100 births per 1000 population
 - c) 30 births per 1000 population
 - d) None of the above
4. When did **Household registration** begin in Japan? **(1 MARK)**
5. Data used for measuring fertility usually comes from **(1 MARK)**
 - a) Census
 - b) Vital statistics system
 - c) Sample surveys
 - d) All of the above
6. Crude birth rate has many weaknesses, including the following: **(1 MARK)**
 - a) It can mask significant differences in actual reproductive behaviour between two populations
 - b) Crude birth rates do not allow comparison in space (region countries)
 - c) It ignores the age structure of the population
 - d) All the above

SECTION B (ANSWER ALL QUESTIONS) (75 MARKS)

1. **Anders Kiaer (1838-1919)** started the process that ended in the development of modern survey sampling theory and methods. What are the **THREE** important principles in Kiaer's approach?(6 MARKS)
2. In line with early developments of survey sampling, write briefly on the **TWO** scholars below:
 - a. **John Graunt (1620-1674)** (4 MARKS)
 - b. **Pierre Simon Laplace (1749-1827)** (4 MARKS)
3. With examples explain briefly what the **THREE** types of surveys below are and what they intend to achieve?
 - a) **Specialized surveys** (2MARKS)
 - b) **Multi-phase surveys** (2MARKS)
 - c) **Multi-subject surveys** (2MARKS)
4. With examples, clearly outline the advantages of Sample Surveys compared to Censuses. (2 MARKS)
5. Differentiate between **Sampling errors** and **Non - Sampling errors**? (2 MARKS)
6. What value must the period NRR have if period TFR is at replacement? Why? (4 MARKS)
7. Life expectancy is usually a better summary of mortality than Crude death rates. Can you think of a situation when it makes no difference which one you use? (4 MARKS)
8. With examples, briefly explain the difference between a **Refugee** and an **Asylee**? (4 MARKS)
9. In the period 2014 – 2015, the Population Studies Department had a Net Migration of – 5.1. What does this mean? (2 MARKS)
10. With examples, briefly explain the following sources of sampling and non-sampling errors
 - a. **Margin of error** (1 MARK)
 - b. **Coverage/frame error** (1 MARK)
 - c. **Specification error** (1 MARK)
 - d. **None response error** (1 MARK)
 - e. **Processing error** (1 MARK)
11. With examples, explain the difference between **Stock** data and **Flow** data.(3 MARKS)
12. What is the link between theory and policy? (4 MARKS)
13. Briefly state the two (2) ways in which the General Fertility Rate (GFR) is a better measure of fertility levels than the Crude Birth Rate (CBR). (2 MARKS)
14. Name two (2) limitations to using the Gross Reproduction Rate (GRR). (2 MARKS)
15. State the three types of piloting involved in a census (3 MARKS)
16. With examples, explain the difference between Analytic surveys and Descriptive surveys? (4 MARKS)
17. Write short notes on the following:
 - i. SEA (4 MARKS)

ii.CSA (4 MARKS)

iii. Populations registers (4 MARKS)

SECTION C: (ANSWER Q1 AND ANY OTHER QUESTION) (50 MARKS)

1. The following table shows the population of country A. Using this table, calculate the following:

Table 1.0 (Population of Country A in 2010) (30 MARKS)

Age group	Women in Age group (Mid year population)	Live births to women in Age group
10-14	9387020	9462
15-19	9493761	484895
20-24	8678024	965122
25-29	9341226	1083010
30-34	10179403	889365
35-39	11369766	424890
40-44	11049377	81027
45-49	9607011	3624

- a. The general Fertility rate (5 MARKS)
 - b. Age specific fertility rate (5 MARKS)
 - c. Total fertility rate (5 MARKS)
 - d. At which age group is fertility lowest, what is the probable reason? (3 MARKS)
 - e. According to the census of population A in 2010, 52% of the births in this population were female and children 0-4 enumerated were 100,000 what is GRR? (5 MARKS)
 - f. What is the child woman ratio of this population? (4 MARKS)
 - g. What is this country likely to be? Comment on the fertility of this population (3 MARKS)
2. Describe in detail the principles for the collection and compilation of Vital Statistics. What needs to be done in Zambia to improve the collection of Vital Statistics? (20 MARKS)
 3. What determines what topics should be included in the census? To what extent does Zambia adhere to this? (20 MARKS)

End of Examination