

Mid-West University
Examinations Management Office

Chance Examinations-2080

Bachelor level/ B. Sc. / 8th Semester

Time: 3 hours

Full Marks: 100

Pass Marks: 50

Subject: Mathematical Demography (STAT481)

Candidates are required to give their answer in their own words as far as practicable. The figures in the margin indicate full marks.

Group A

Short answer questions (Attempt all). (7x2=14)

1. a. Define deterministic model of demography.
b. Write the concept of stationary population model.
c. Write the estimation of birth rates.
d. Define natural movement model.
e. What are measure of fertility?
f. Define risk for first marriage.
g. Define the indirect techniques of demography.

Group B

Descriptive answer questions (Attempt all). (10x3=30)

2. i) What are the demographic models?
ii) Write the stochastic model.
iii) Mention the application of age structural model.
iv) Discuss on estimation of mean length of generation.
v) Write about UN's life table.
vi) What are the fertility models?
vii) What are the needs of indirect techniques in demography?
viii) Write the estimation of mortality from information in child ever born by Aryal method.
ix) What do you mean by marital rates?
x) What are the mathematical theory of population?

Group C

Long answer questions (Any eight questions only). (7x8=56)

3. Explain about survival probability model.
4. Write the Brass's relative gompertz fertility models.
5. Explain about Coale and Demeny regional life table.
6. Describe Coale and Trusse fertility model.
7. Discuss on the method of Brass typed based on comparison period fertility rates with reported average parities.
8. What are the age specific fertility from the increment of cohort parities between two survey?
9. Explain about estimation of birth rates by reverse survival of the population under age 10.
10. Write about linear and Haznal's method of estimation of mean age at marriage.
11. What are the natural movement model of demographic?

The End