b. Discuss the trend of vital statistics in India based on the data of sample Registration System, 2020. 10

10. a. Discuss the trends and spatial variation in population growth of north eastern states. 10

b. State any four important features of Assam Human Development Report, 2014. 4

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PG Even Semester Exam, May 2025

Economics

4th Semester

COURSE NO. ECO-653 (A)

[Demography]

Full Marks : 70
Pass Marks : 28

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer five questions, taking one from each Unit

UNIT-I

1. a. State the balancing equation of population growth and its significance in demography. 2+2=4

b. Outline the main tenets of Optimum theory of population. How is this theory an improvement over Malthusian theory of population? Discuss. 5+5=14

2. a. Whether the subject matters of demography and population studies are same. Offer three suitable arguments in support of your answer. 3

b. Define optimum population. State Dalton's formula of measuring maladjustment between the actual and optimum population at a point of time. 2+2=4

c. Discuss Leibenstein's theory of population. Why is it considered as superior to the Optimum theory of population. 5+2=7

UNIT-II

3. What is population ageing? Discuss various measures of population ageing. 2+12=14

4. What is population projection? Discuss mathematical methods of making population projection. 2+12=14

UNIT-III

5. a. Interpret the following results. 4

   i. ASFR $_{24\text{-}29}$ = 1500

   ii. NRR = GRR

   iii. $d_2 = l_2 - l_3 = 750$

   iv. CBR – VDR = 0

   b. Calculate GRR and NRR from the following data and interpret the results. 8

Age Group	Female Population	Female Birth	Survival Rate
15-19			
20-24			
25-29			
30-34			
35-39			
40-44			
45-49			

   c. State any two assumptions of a life table. 2

6. a. State the interpretation of Lx column in a life table. 3

   b. What is the advantage of life table over other conventional measures of mortality? 2

   c. Interpret the following results. 4

   i) $q_{20} = \frac{d_{20}}{l_{20}} = 0.5$

   ii) $NRR < 1$

   iii) GFR = 525

   iv) $\frac{CBR}{CDR} < 1$

   d. Why is NRR considered as the best measures of reproduction? Is it a better alternative to TER as a measure of replacement rate? Discuss. 3+2=5

UNIT-IV

7. a. Define the terms in-migrants and out-migrants in the context of internal migration with the help of an example. 2

   b. Throw light on the direct and indirect measures of internal migration. 5

   c. Critically discuss Ravenstein's laws of migration. 7

8. a. Define return migration. 2

   b. What are the four factors that influence migration decisions according to Lee's theory? Explain. 6

   c. Explain briefly the characteristics of migrants as proposed by Lee's theory of migration. 6

UNIT-V

9. a. Define the terms vital statistics and vital events. 2+2=4