

2022
B.A./B.Sc.
Sixth Semester
DISCIPLINE SPECIFIC ELECTIVE – 3
STATISTICS
Course Code: STD 6.11
(Demography & Vital Statistics)

Total Mark: 70

Pass Mark: 28

Time: 3 hours

Answer five questions, taking one from each unit.

UNIT-I

1. (a) Discuss briefly about demographic transition theory. 6
(b) Write short notes on the following: 4×2=8
 - (i) Dependency ratio
 - (ii) Balancing equation
2. (a) Explain about optimum theory of population. 8
(b) Write a note on population composition. 6

UNIT-II

3. (a) Define the term ‘vital statistics’. Describe their nature and the methods of collection of vital statistics. 1+4=5
(b) Explain crude and standardized death rates . In what way is standardized death rate superior to crude death rate? Give briefly the direct and indirect method of finding standardized death rates. 2+2+1+4=9
4. (a) Explain any two differences between population census and vital statistics. What are the weaknesses of registration of vital statistics in India? 4+2=6
(b) What are the measures of mortality to express death rates? 2

- (c) Define and formulate: 2×3 = 6
- (i) Infant mortality rate
 - (ii) Sex ratio
 - (iii) Age specific death rate

UNIT-III

5. (a) Define the following: 2×3 = 6
- (i) Stationary population
 - (ii) Stable population
 - (iii) Radix of life table
- (b) Describe the various columns of a life table. According to the latest WHO data, what is the average life expectancy of male and female in India? 7+1=8
6. (a) Define the following: 2×3 = 6
- (i) Central mortality rate
 - (ii) Force of mortality
 - (iii) Multiple and double decrement life table
- (b) Describe the model life table. Name the different kinds of model life table. 2+2=4
- (c) Fill in the blanks which are marked with a query in the following life table. 4

Age x	l_x	d_x	p_x	q_x	L_x	T_x	e_x^o
30	762227	?	?	?	?	27296632	?
31	758580	-	-	-	-	?	-

UNIT-IV

7. (a) In what manner the abridged life table is conducted by King's method. 4
- (b) Define and formulate general fertility rate and total fertility rate. Explain in brief the measurement of population growth. 4+6=10

8. (a) Explain Greville's method of abridged life table. 6
(b) Define and formulate: $2 \times 4 = 8$
(i) Crude birth rate
(ii) Gross reproductive rate
(iii) Net reproductive rate
(iv) Specific fertility rate

UNIT-V

9. (a) Define the following: $2 \times 2 = 4$
(i) Immigration and emigration
(ii) Migration stream
(b) Discuss about the sources of information on internal migration. 10
10. (a) Give the concepts of in-migration, out-migration, gross & net migration. 4
(b) Describe what do you mean by differential migration. 10