

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN  
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)

Chromepet, Chennai - 600 044.

B.Sc.Statistics - END SEMESTER EXAMINATIONS - APRIL 2025

SEMESTER - VI

**23USTCT6014 - Demography and Acturial Statistics**

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

### Section B

Answer any **SIX** questions ( $6 \times 5 = 30$  Marks)

1. Explain sources of demographic data, census and demographic surveys.
2. Explain specific death rate.
3. Relate the steps in construction of an abridged life table.
4. Discuss various types of annuities.
5. What are the defects of natural premiums?
6. Classify between Direct and Indirect standardization of rates.
7. Write short notes on Central Mortality Rate.
8. Determine the formula for present value.

### Section C

Answer any **THREE** questions ( $3 \times 10 = 30$  Marks)

9. Elaborate the weakness of registration of vital statistics in India.
10. Prepare a note about
  - (i) Total fertility rates.
  - (ii) Net Reproduction rates.
  - (iii) Gross Reproduction rates.
11. Organize and construct the various columns of a life table.
12. Explain (i) Redemption of loans. (ii) Sinking Fund.
13. Examine loading for expenses with and without profit premiums.

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