



M 24922

Reg. No. : .....

Name : .....

IV Semester M.A./M.Sc./M.Com. Degree (Reg./Sup./Imp.)

Examination, March 2014

STATISTICS

Paper 4.3 : Elective III : Demography

Time : 3 Hours

Max. Marks : 70

**Instruction** : Answer **any five** questions, choosing **one** from **each** unit.

UNIT – I

1. a) What is Demography ? Explain the nature and scope of the subject.  
b) Discuss the relationship of demography with other disciplines. (7+7)
2. a) Explain the sources of demographic data.  
b) Define the terms – mortality, fertility and migration. Also explain their role on population change. (6+8)

UNIT – II

3. a) Explain the construction and uses of Lexis diagram.  
b) What is a life table ? Explain its construction. (7+7)
4. a) What are the indices of mortality measures ? Describe the indirect method of standardization of mortality rates.  
b) Discuss the application of life table on demographic studies. (7+7)

UNIT – III

5. a) What is a stationary population model ? Explain.  
b) Discuss the different methods of population projection and estimation. (6+8)
6. a) Explain logistic curve in population growth and derive it.  
b) What are intrinsic rate of growth, intrinsic birth rate and intrinsic death rate ? (8+6)

P.T.O.



## UNIT – IV

7. Present short notes on :

- a) Birth-Death Process
- b) Renewal Process
- c) Model life tables.

(5+5+4)

8. Explain :

- a) Markov chain and its application in demography
- b) Coale and Demeny model life tables and
- c) UN tables for developing countries.

(5+5+4)

## UNIT – V

9. Explain :

- a) Demographic basis and uses of fertility model
- b) Coale and Trussell model of fertility and
- c) Srinivasan fertility model.

(5+5+4)

10. a) Describe the various measures of fertility with illustrations.

b) Explain Brass relational Gompertz model of fertility.

(7+7)