

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2023
(Third Semester)

Branch – STATISTICS

MAJOR ELECTIVE COURSE – I: DEMOGRAPHIC TECHNIQUES

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

- 1 Name the category under which Census and Registration statistics are studied.
(i) Descriptive demography (ii) Comparative demography
(iii) analytical demography (iv) Historical demography
- 2 _____ presents a comprehensive picture of the population that gets depleted systematically through deaths at each age.
(i) Mortality (ii) Demography
(iii) Population studies (iv) Life table
- 3 What is the study of the total process of fertility?
(i) Fecundity (ii) Fertility
(iii) Natality (iv) Mortality
- 4 What is the exercise of calculating future values of a given population?
(i) Migration (ii) Population calculation
(iii) Population projection (iv) Demography.
- 5 _____ process considers only decrease in population size.
(i) Birth and death process (ii) Pure birth process
(iii) Pure death process (iv) Linearity of birth process

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

- 6 a Explain the scope of demography.
OR
b Discuss about Demographic Transition Theory.
- 7 a Discuss assumptions of life tables.
OR
b Explain about Force of Mortality.
- 8 a Discuss about Natality.
OR
b Examine Net Reproduction rate.
- 9 a Explain the concept of Migration and kinds of migration.
OR
b Discuss about the factors affecting migration.
- 10 a Analyse the concept of pure birth process.
OR
b Examine about birth and death process.

Cont...

SECTION -C (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks

(5 x 6 = 30)

- 11 a Elaborate about Infant Mortality rate.
OR
b Explain Chandrasekar and Deming method of measurement of vital registration.
- 12 a Analyse the relationship among life table functions.
OR
b Elaborate about Gompertz model on mortality analysis.
- 13 a Explain about CBR, GFR & TFR.
OR
b Categorise the measures of Population growth.
- 14 a Explain about Population Projection.
OR
b Explain the following a . Hamilton's Rates b. Factors affecting migration.
- 15 a Discuss demographic events as a series of stochastic process.
OR
b Formulate pure birth and death process using the system of differential equations.

Z-Z-Z

END