

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**MSc DEGREE EXAMINATION JUNE 2018
(Fourth Semester)**

Branch - **STATISTICS**

DEMOGRAPHIC TECHNIQUES

Time: Three Hours Maximum: 75 Marks

Answer **ALL** questions

ALL questions carry **EQUAL** marks (5x15 =75)

- 1 a Explain the following with reference to demography (i) Definition (ii) Nature & Scope (iii) Transition theory (iv) Events and data.
OR
b Explain Chandrasekar Deming index,
c Explain the method of adjusting IMR.
- 2 a 1 Explain the concept, functions and types of life tables.
b Explain the method of construction of life tables.
OR
c Explain the ML estimate of survival probability,
d Explain Gombertz model in mortality.
- 3 a Explain the meaning, characteristics and indices of fertility measure.
b Obtain the relationship between CBR, GFR and TFR.
OR
c Explain any two measures of fertility,
d 1 Explain Dandekar's poisson model.
- 4 a Explain the concept of migration and its types.
b Explain Frejka's component method of population projection.
OR
c Explain the concept of Hamilton's migration rate and its estimation,
d Explain the method of Leslie matrix in population projection,
a Define stochastic process and illustrate with demographic events,
b Explain pure death process.
OR
c Explain the method of determining extension probability,
d Explain birth and death model with migration.