PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2017
(Sixth Semester).

Branch- STATISTICS

DEMOGRAPHIC METHODS

Time.: Three Hours   Maximum : 75 Marks

SECTION-A (20 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (10x2 = 20)

1   Define demography.

2   State the different sources of demographic data.

3   Define General Fertility Rate.

4   Define Age-Specific Death Rate.

5 - Define Infant Mortality Rate.

6   Define Force of Mortality.

7   State any two uses of life tables!

8   Define Gross Migration Rate.

9   What do you mean by population projection?

10   How population growth is measured?

SECTION - B (25 Marksl
Answdr **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5x5 = 25)

11 a   Briefly explain the uses of vital statistics with examples.
OR
   b Briefly explain the Indian Civil Registration.

12 a Briefly explain the Net Reproduction Rate (NRR).
OR
   b Briefly explain the fertility and its measurement.

13 a Briefly explain the Mekeham's law.
OR
   b Briefly explain the purpose and procedure for standardized death rates.

14 a Briefly explain the assumptions, descriptions of life tables.
OR
   b Write a short note on Net, Mobility and Migration Rate.   •

15 a Describe the components of population change and growth.
OR
   b Briefly explain the basic ideas of stationary and stable population.

SECTION - C (30 Marks)
Answer any **THREE** Questions
ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

16   Briefly explain the followings with its merits
(i) Vital Registration (ii) Population Census (iii) Population Register.

17   Calculate the General Fertility Rate, Total Fertility Rate and Gross Reproduction Rate from the following data, assuming that for every 100 girls 106 boys are bom

Age of wom.en:	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Numberof women:	212,619	198,732	162,800	145,362	128,109	106,211	86,753
Age-SFR (per 1000):	98.0	169.6	158.2	139.7	98.6	42.8	16.9

18 ' Find the standardized death rate by direct and indirect methods for the data given below

Age	Standard population Population (in '000)	Specific Death rate	Population A Population (in '000)	Specific Death rate
0-5	8	50	12	48
5-15	10	15	' 13	14
15-50	27	10	. 15	9
50 and above	5	60	10	59

In the usual notations, prove that

i) $= \frac{dL_x}{dx} (\dot{n}) = \frac{dT_x}{dx} = l_x$

(ii> $\frac{d}{dx} (e_x°) = (-1 + m_e x°)$-

20 Write the equation to a Logistic curve and interpret its parameters; How are they obtained using the decimal population data of a country? Is this curve is suitable-for representing the growth of Indian population?

Z-Z-Z   END