2019

3rd Semester Examination

STATISTICS (Honours)

Paper - C6P

Full Marks : 20   Time : 3 Hours

The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.

Answer all questions.

1. Calculate the GRR and NRR from the data given in adjoining table   7

Age group	Female Population (in thousand)	Female births	Survival rate
15-19	1600	19,000	0·921
20-24	1000	70,200	0·901
25-29	1685	90,600	0·885
30-34	1730	62,400	0·862
35-39	1725	32,500	0·850
40-44	1620	11,000	0·832
45-49	1510	800	0·812

[Turn Over]

2. Given the following table for l_x, the number of rabbits lining at age x, complete the life table for rabbits. 8

   x : 0 1 2 3 4 5 6

   l_x : 100 90 80 75 60 30 0

   x, y, z are three rabbits. of age 1, 2, 3 respectively. Find the probability that

   (i)   at least one of them will be alive for one year more.

   (ii) x, y, z will be alive for two years.

   (iii) Exactly are of three will be alive in two years and

   (iv) all will be dead in two years.

3. Viva voce.   3

4. Practical note book.   2

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