2013
M.Sc.
3rd Semester Examination
ANTHROPOLOGY
PAPER—ANT-302
Full Marks : 40
Time : 2 Hours

The figures in the right-hand margin indicate full marks.
Candidates are required to give their answers in their
own words as far as practicable.
Illustrate the answers wherever necessary.

Answer Q. No. 1 and three questions from the rest.

1. Answers any five from the following : 2×5
(a) Define demography.
(b) Mention the sources of demographic data.
(c) State the characteristic features of demographic population.
(d) What is a population pyramid?
(e) Distinguish between population and sample.
(f) Define probability.
(g) What is simple random sampling?
(h) Write the formula of addition rule of probability.

(Turn Over)
2. (a) Discuss briefly the relationship between Demography and Anthropology.  
(b) Workout the all possible random samples from the population of scores 2, 4, 6, 8 with n = 2.

3. (a) State the disadvantages of crude death rate and crude birth rate. What are their merits?  
(b) What is the mathematical probability of India to win a cricket match against Australia? Work out the solution with the help of probability formula. How would you calculate the statistical probability of India winning a match against Australia?  
\[ 2^{\frac{1}{2}} + 2^{\frac{1}{2}} \]

4. (a) Define fertility and mention the different measures of fertility.  
(b) Calculate the probability of randomly selecting an adult individual whose height is more than 72 inches from a population with an average height of \( \mu = 68 \) inches and a standard deviation of 6 inches.

5. (a) Discuss briefly the essential features of demographic transition theory.  
(b) Scores obtained by students in an examination form a normal distribution with \( \mu = 500 \) and \( \sigma = 100 \). What value separates the top 15% of the examination scores from the rest of the distribution?

6. (a) State the essential arguments of the theory of population proposed by T.R. Malthus.  
(b) The following sample of n = 10 scores was obtained from a normal population with \( \sigma = 12 \). The scores in the sample are: 78, 90, 54, 77, 71, 99, 85, 74, 93, 84. Use these data to test the hypothesis that the population mean is \( \mu = 75 \). Use \( \alpha = 0.05 \) for the test.