

**2017**

**M.Sc. 4th Semester Examination**

**ANTHROPOLOGY**

**PAPER—ANT-401(B)**

*Full Marks : 50*

*Time : 2 Hours*

*The figures in the 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. Answer any *five* questions : 5×2
- (a) Define mutation.
  - (b) What is developmental genetics ?
  - (c) Define genetic drift.
  - (d) What is assortative mating ?
  - (e) What is founder effect ?
  - (f) What is allele frequency ? Give example.

*(Turn Over)*

- (g) Write two causes of changes in gene frequency in a population.
- (h) Write the full names of J .D Watson & F. H. C. Crick.
2. What is consanguinity ? Give examples. Find the inbreeding co-efficient of a first cousin mating with a suitable pedigree. 4+6
  3. What are the preassumptions of Hardy-Weinberg equilibrium. Considering a bi-allelic trait, prove that the genotype frequency of the trait lies in equilibrium. 4+6
  4. What do you mean by population genetics ? Briefly discuss its relevance in Anthropology. 3+7
  5. The incidence rate of haemophilia is one out of 20,000 live birth. Find the allele frequency of dominant and recessive alleles of the trait. Show all the calculations. 10
  6. What are the different modes of Isolation ? Discuss with suitable examples. 10

*[ Internal Assessment — 10 ]*

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