



'समानो मन्त्रः समितिः समानी'

**UNIVERSITY OF NORTH BENGAL**  
B.Sc. Honours 5th Semester Examination, 2023

**CC11-ANTHROPOLOGY (501)**

**HUMAN POPULATION GENETICS**

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.*

**SECTION-A**

1. Answer any **five** questions from the following: 1×5 = 5
- (a) What is population genetics?
  - (b) Write an example of sex-linked inheritance.
  - (c) What is allele frequency?
  - (d) Define gene flow.
  - (e) What is gene mutation?
  - (f) Who proposed Hardy-Weinberg Law?
  - (g) Define heterozygous.
  - (h) What is mode of inheritance?

**SECTION-B**

2. Answer any **three** questions from the following: 5×3 = 15
- (a) What are the assumptions of Hardy-Weinberg equilibrium?
  - (b) Write a note on founder effect.
  - (c) What are the important characteristic features of autosomal recessive trait?
  - (d) What do you mean by incomplete dominance?
  - (e) What do you mean by multiple allelism?

**SECTION-C**

3. Answer any **two** questions from the following: 10×2 = 20
- (a) Illustrate the Hardy-Weinberg Principle with suitable example.
  - (b) Briefly discuss sex-linked inheritance in man with example.
  - (c) Describe the mechanism for dynamics in gene frequency.
  - (d) Discuss briefly about the polygenic inheritance with example.

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