

[This question paper contains 2 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 3295

I

Unique Paper Code : 2154002006

Name of the Paper : (Generic): Genetic Research in
Anthropology

Name of the Course : **B.Sc. (H) Anthropology**
Part III November-
December 2024 (NEP-
UGCF-2022)

Semester : V

Duration : 3 Hours

Maximum Marks : 90

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
 2. Attempt *any five* questions.
 3. All questions carry equal marks
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1. How can genomic data be used to understand race?
 2. Discuss the difference between synonymous and non-synonymous substitutions.

P.T.O.

3. Discuss candidate gene approach used in human genetics.
4. Describe the main assumptions of Hardy-Weinberg equilibrium.
5. Discuss the process of genetic counselling and its advantages in preventing risk of passing them to next generation.
6. Differentiate between qualitative and quantitative data collection in genetic studies?
7. Discuss the evolution of genetic markers as a tool in anthropological genetics.
8. Write an essay on Next generation sequencing technologies.
9. Write short notes on *any two* of the following:
 - (a) Single gene inheritance
 - (b) Genomic imprinting
 - (c) Association studies
 - (d) PCR