

[This question paper contains 2 printed pages.]

Sr. No. of Question Paper : 1654 **C** **Roll No.....**

Unique Paper Code : 215603

Name of the Paper : ANTH 619 : Genomic Diversity in Human Populations

Name of the Course : B.Sc. (Hons.) Anthropology

Semester : VI

Duration : 3 Hours

Maximum Marks : 75

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Answer any **five** questions.
3. All questions carry equal marks.

1. Describe the use of autosomal markers and haplotype in understanding genomic diversity with one example each.
2. Describe Human Genome Diversity Project, its objectives and associated ethical issues.
3. Genetic diversity in Indian context has substantial DNA evidences of earliest stages of anatomically modern human evolution. Explain.
4. Give an account of Y chromosome evidences in tracing human migrations.
5. Describe briefly molecular basis of common complex diseases with examples.
6. Describe various factors responsible for maintaining genetic variation in the population.

7. Explain adaptation in human evolution with examples.
8. What is balanced genetic polymorphism ? Explain with human examples.
9. Write short notes on any **two** of the following :
 - (i) Human Genome Diversity
 - (ii) Out of Africa hypothesis based on Mt DNA
 - (iii) Adaptive genetic polymorphism
 - (iv) Genetic variability in natural population