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Your Roll No _____

Sr. No. of Question Paper : **1800**

B.Sc (Hons.) Anthropology Part-II Semester IV (NEP UGCF:2022)

Theory Examination May/June 2026

UPC- 2152012401 (DSC): Human Genetics

Time: 03 hours

Maximum Marks: 90 Marks

Attempt any five questions.

All questions carry equal marks

1. Describe the process of transcription in a human cell.
2. Explain various methods of DNA replication in humans with suitable diagrams.
3. Describe the history and applications of Human Genome Project.
4. What are the characteristic features of double helical structure of DNA by Watson and Crick and alternate forms of DNA in humans?
5. Describe the various banding techniques used to assess chromosomal abnormalities in humans.

6. What do you understand by autosomal dominant and autosomal recessive inheritance pattern? Explain with suitable examples and pedigrees.
7. What is dosage compensation and its relevance in human genetics?
8. Explain various numerical chromosomal abnormalities in humans with suitable examples.
9. Write short notes on *any two* of the followings:
 - a. FISH
 - b. *Cri-du-chat* syndrome
 - c. Genotyping and sequencing
 - d. Prenatal diagnosis and genetic screening