

## MASTERS IN ANTHROPOLOGY (MAAN)

### Term-End Examination

June, 2022

### MANE-001 : HUMAN GENETICS

*Time : 3 hours*

*Maximum Marks : 100*

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**Note :** Attempt any **five** questions. Choose at least **two** questions from each section. All questions carry equal marks. The word limit for 20 marks questions is 500 words and for 10 marks questions is 250 words.

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### SECTION A

1. What is Human Genetics ? Briefly discuss different branches of Human Genetics. 20
2. What is Hardy-Weinberg Law ? Discuss its importance and implications in Human Population Genetics. 20
3. What are different types of Cell Division ? Discuss 'Mitosis' with suitable diagrams. 20

4. Briefly discuss various chromosomal aberrations in Man. 20
5. Write short notes on any **two** of the following : 10+10=20
- (a) Consanguineous Marriages
  - (b) Colour Blindness
  - (c) Genomics
  - (d) DNA Structure

## SECTION B

6. Briefly discuss various applications of Human Genome Project. 20
7. Define DNA polymorphism. Briefly comment on different forms of DNA polymorphism. 20
8. What is ethics in Genetic Research ? Briefly discuss Ethical, Legal and Social Issues (ELSI) in Human Genetic Research. 20
9. What is Prenatal Diagnosis ? Examine the techniques of prenatal diagnosis. 20
10. Write short notes on any **two** of the following : 10+10=20
- (a) Genetic Epidemiology
  - (b) Down Syndrome
  - (c) Polymerase Chain Reaction (PCR)
  - (d) Abnormal Haemoglobins
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