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**MANE-001** 

## MASTERS IN ANTHROPOLOGY (MAAN)

## Term-End Examination December, 2021

**MANE-001: HUMAN GENETICS** 

Time: 3 Hours Maximum Marks: 100

Note: Answer any five questions. Attempt at least two questions from each Section. All questions carry equal marks. Word limit for 20 marks question is 500 words and for 10 marks question is 250 words.

## Section-A

- What is Inheritance Pattern? Discuss the various inheritance patterns in man.
- 2. Discuss Mendel's laws of inheritance. 20

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3. Define Human Genetics. Give a detailed account on any three branches of Human Genetics with suitable diagrams.20

4. What is Consanguinity? Discuss different forms of consanguinity in Indian populations.

20

5. Write short notes on any *two* of the following:

 $2 \times 10 = 20$ 

- (a) Down syndrome
- (b) Y-linked inheritance
- (c) Red-green colourblindness
- (d) DNA

## Section—B

- 6. What is genetic screening and genetic counselling? Discuss them in detail. 20
- 7. What is Polymorphism? Discuss different forms of DNA polymorphism.
- 8. What is Bioinformatics? Briefly discuss any three tools used for Bioinformatics research. 20

- What is Human Genome Project? Briefly discuss various applications of Human Genome Project.
- 10. Write short notes on any *two* of the following:

 $2 \times 10 = 20$ 

- (a) Ethical, Legal and Social Issues (ELSI) in Genetic Research
- (b) Chromosomal Translocation
- (c) Gene Therapy
- (d) Mitochondrial DNA and Y-Chromosomal Polymorphism