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**MANE-001**

**MASTER'S IN ANTHROPOLOGY  
(MAAN)**

**Term-End Examination**

**June, 2020**

**MANE-001 : HUMAN GENETICS**

**Time : 3 Hours**

**Maximum Marks : 100**

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**Note :** (i) *Attempt five questions in all.*

(ii) *Attempt at least two questions from each Section.*

(iii) *All questions carry equal marks.*

(iv) *The word limit for 20 marks question is 500 words and that of 10 marks question is 250 words.*

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**Section—A**

1. Define Human Genetics. Briefly discuss on various branches of Human Genetics. 20
2. What is mitosis ? Describe various stages of mitotic cell division with suitable diagrams. 20

3. Discuss briefly different types of chromosomal aberrations in man with suitable examples. 20
4. What is genetic polymorphism ? Briefly discuss the balanced polymorphism. 20
5. Write short notes on any *two* of the following :

$2 \times 10 = 20$

- (a) Consanguineous marriages
- (b) Structure of DNA
- (c) ABO blood group system
- (d) Polymerase Chain Reaction (PCR)

### Section—B

6. What is Prenatal Diagnosis ? Discuss various techniques involved in prenatal diagnosis. 20
  7. Briefly comment on various applications of Human Genome Project. 20
  8. What is Garrod's hypothesis of inborn errors of metabolism ? Discuss your answer with suitable examples. 20
  9. Discuss briefly the Ethical, Legal and Social Issues (ELSI) in Human Genetics Research. 20
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10. Write short notes on any *two* of the following :

$2 \times 10 = 20$

- (a) DNA polymorphism
- (b) Sickle Cell Hemoglobin
- (c) Genetic Epidemiology
- (d) Colourblindness