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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

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.

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

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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