

**MASTERS IN ANTHROPOLOGY (MAAN)**

**Term-End Examination**

**December, 2016**

**MANE-001 : HUMAN GENETICS**

*Time : 3 hours*

*Maximum Marks : 100*

*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.*

**SECTION - A**

1. Define Human Genetics. Briefly comment on different branches of Human Genetics. 20
2. What are different types of Cell Division ? Discuss any one of the Cell Division with suitable diagrams. 20
3. Explain the Random mating and Assortative. 20
4. Describe the structure and salient features of DNA double helix. 20
5. Write short notes on any two of the following in 250 words each : 10+10
  - (a) Down Syndrome
  - (b) ABO Blood Group System
  - (c) Y- linked inheritance
  - (d) Cytogenetics

## SECTION - B

6. What is DNA Polymorphism ? Briefly discuss different forms of DNA polymorphism. 20
  7. Discuss in brief various applications of Human Genome Project. 20
  8. What is Prenatal diagnosis ? Examine the indications and techniques of Prenatal diagnosis. 20
  9. What is Bioinformatics ? Briefly discuss any three tools used for Bioinformatics research. 20
  10. Write short notes on **any two** of the following in 250 words each : 10+10
    - (a) Genomics
    - (b) Polymerase Chain Reaction (PCR)
    - (c) Ethical, Legal and Social Issues in Genetic research (ELSI)
    - (d) Colour Blindness
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