

**MASTERS IN ANTHROPOLOGY (MAAN)**

**Term-End Examination**

**December, 2017**

**MANE-001 : HUMAN GENETICS**

*Time : 3 hours*

*Maximum Marks : 100*

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

**SECTION - A**

1. Briefly describe the history and scope of human genetics. 20
2. What do you understand by Hardy Weinberg Equilibrium (HWE) ? Discuss the various factors that affect HWE. 20
3. Discuss various techniques involved in molecular genetic (DNA) analysis. 20
4. Describe the role of mt DNA and Y-chromosome polymorphism in studying the history of human populations. 20
5. Write short notes on any two of the following : 10+10
  - (a) Galactosaemia
  - (b) DNA structure
  - (c) Non Disjunction
  - (d) FISH

## SECTION - B

6. Discuss various types of structural chromosomal abnormalities. 20
  7. Differentiate between inbreeding and consanguinity. Describe the consequences of inbreeding in human populations with suitable examples. 20
  8. Define genetic polymorphism. Discuss its importance in human population genetics. 20
  9. Differentiate between the autosomal dominant and X-linked dominant modes of inheritance giving suitable examples. 20
  10. Write short notes on **any two** of the following : 10+10
    - (a) Chromosomal translocation
    - (b) Multiple alleles
    - (c) Ethical Issues in Human Genetic Research
    - (d) Human Genome Project
-