

**MASTERS IN ANTHROPOLOGY (MAAN)**

**Term-End Examination**

**June, 2015**

00548

**MANE-001 : HUMAN GENETICS**

*Time : 3 hours*

*Maximum Marks : 100*

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**Note :** Answer 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.

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**SECTION A**

1. What is Human Genetics ? Briefly examine the different branches of Human Genetics. 20
2. What is Mitosis ? Briefly discuss the various stages of cell division with suitable diagrams. 20
3. Discuss in brief different types of chromosomal aberrations. 20
4. Examine briefly the Inborn Errors of Metabolism in Man, with examples. 20

5. Write short notes on any *two* of the following : 10+10=20

- (a) X-linked Inheritance
- (b) Fluorescence in situ Hybridization (FISH)
- (c) Inbreeding
- (d) Abnormal Haemoglobins

## SECTION B

6. Briefly comment on the structure and features of DNA. 20
7. What is Genetic Counselling ? Briefly discuss the various steps involved in genetic counselling. 20
8. What is Ethics in Genetic research ? Discuss Ethical, Legal and Social Issues [ELSI] in Genetic research. 20
9. What is Phenylthiocarbamide (PTC) ? Describe the procedure for PTC tasting ability through serial dilution method. 20
10. Write short notes on any *two* of the following : 10+10=20
- (a) Human Genome Project
  - (b) Bioinformatics
  - (c) Genetic Epidemiology
  - (d) Polymorphism
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