

MASTERS IN ANTHROPOLOGY

Term-End Examination

December, 2013

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. The word limit for **20** marks is **500** words and for **10** marks are **250** words.

SECTION-A

1. Discuss the importance of human genetics in physical anthropology. Examine briefly the different branches of human genetics. **20**
2. What is Hardy - Weinberg Law ? What are the different factors that influence change in gene frequencies over a period of time ? Discuss any two factors. **20**
3. What is Genetic Polymorphism? Examine briefly various tools used for studying polymorphism. **20**
4. Discuss briefly the Mendel's Laws of inheritance. **20**
5. Write notes on **any two** of the following : **10+10**
 - (a) Alkaptonuria (AKP)
 - (b) Consanguineous marriages
 - (c) One gene one enzyme hypothesis
 - (d) Genomics

SECTION-B

6. Define DNA Polymorphism. Describe briefly any two techniques used in Molecular Genetics. 20
 7. What is Human Genome project ? Examine any two applications of Human Genome project. 20
 8. What is Genetic Screening and Genetic Counselling ? Discuss. 20
 9. What do you understand by Bio-informatic. Briefly discuss few tools used in Bio-informatics. 20
 10. Write short notes on **any two** of the following in 250 words each. 10+10
 - (a) DNA Structure
 - (b) Hap Map Project
 - (c) Ethical , Legal and Social Issues (ELSI) in Genetics.
 - (d) Balanced polymorphism
-