

MASTERS IN ANTHROPOLOGY (MAAN)

Term-End Examination

00652

June, 2014

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. Give an account of different inheritance patterns in man. 20
2. What are the various factors which result in departure from Hardy-Weinberg equilibrium ? 20
3. Give a detailed account of causes of chromosomal aberrations. 20
4. What is Garrod's hypothesis of inborn errors of metabolism ? Illustrate your answer giving suitable human examples. 20
5. Write an essay on techniques of human molecular genetics. 20

SECTION B

- 6.** Describe the following : *10+10*
- (a) Biochemical genetics
 - (b) Molecular genetics
- 7.** Explain the following : *10+10*
- (a) Inbreeding and its consequences
 - (b) Genetic screening
- 8.** Discuss briefly : *10+10*
- (a) Scope and methods in genetic epidemiology
 - (b) Prenatal diagnosis
- 9.** Write notes on the following : *10+10*
- (a) Normal and abnormal haemoglobins
 - (b) Ethical principles and social issues in human genetics research
- 10.** Briefly discuss the following : *10+10*
- (a) Gene therapy
 - (b) Human evolution as studied by mitochondrial DNA and Y-chromosome polymorphisms