

M.A./M.Sc. Examination, 2019
Semester–IV
Anthropology
Paper – XXVI (Gr.-B)
(Biochemical Genetics)

Time: 3 Hours

Full Marks: 40

Questions are of value as indicated in the margin.

Answer Question No.6 and *any three* from the rest.

1. What is the molecular basis of MNS blood group? What are the frequencies of MNS blood group antigens in different ethnic groups? Discuss briefly the clinical significance of MNS antibodies. 3+3+4=10
 2. Briefly discuss the importance of twin study in human genetics? In a study conducted among 58 pairs of twins, it was observed that out of 20 pairs of MZ twins 14 pairs concordant for hypertension and out of 38 pairs of DZ twins 11 pairs were found to be concordant for hypertension. What conclusions can be drawn regarding the role of heredity and environment in determining the hypertension from this finding? 6+4=10
 3. Briefly discuss the structure and function of adult haemoglobin. 10
 4. What is RFLPs? Briefly discuss the techniques of PCR. 5+5=10
 5. Briefly discuss the structure and function of HLA. 10
 6. Write short notes on *any two* of the following: 5+5=10
 - (a) Tf
 - (b) mt DNA
 - (c) Karyotyping
 - (d) Mutation
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