2024
M.Sc.
Second Semester
CORE – 05
ANTHROPOLOGY
Course Code: MANC 2.11
(Human Genetics & Variation)

Total Mark: 70 *Pass Mark: 28*

Time: 3 hours

Answer <u>five</u> *questions, taking* <u>one</u> *from each unit.*

UNIT–I

1. Explain the Watson-Crick model of DNA structure with suitable diagram. 14

2. What is chromosomal aberration? Explain the different types of chromosomal aberration. 2+12=14

UNIT–II

3. Explain Hardy-Weinberg law of equilibrium with a hypothetical example. 10+4=14

4. Define genetic variation. Examine the causes of genetic variation between and within human population. 2+12=14

UNIT–III

5. Define adaptive significance. Justify the adaptive significance of adaptation and acclimatization to high altitude. 2+12=14

6. Discuss in detail how man adapt to heat stress. 14

UNIT–IV

7. Outline and discuss the main tenets of neutral theory of molecular evolution. 14

8. Justify the role of mtDNA in human evolution and in studying human ancestry. 14

UNIT–V

9. Discuss twin studies as a method for studying heredity. 14

10. Determine the inheritance pattern of ABO and Rh system. What is the significance of Rh factor in human genetics? 8+6=14

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