2021
B.A./B.Sc.
Fifth Semester
CORE – 11
ANTHROPOLOGY
Course Code: ANC 5.11
(Human Population Genetics)

Total Mark: 70 *Pass Mark: 28*
Time: 3 hours

Answer five *questions, taking* one *from each unit.*

UNIT–I

1. Explain chromosomal theory of inheritance with suitable example. 14

2. What is sex-linked inheritance? Discuss the mode of inheritance in human population citing suitable example. 14

UNIT–II

3. Explain balanced polymorphism with suitable example. 14

4. Discuss, in brief, X-linked polymorphism in human genome. 14

UNIT–III

5. Discuss in brief the assumptions of Hardy-Weinberg equilibrium. 14

6. What are allelic and genotypic frequencies? In a population that is in Hardy-Weinberg equilibrium, 38% of the individuals are recessive homozygous for a certain trait. In a population of 14,500, calculate the percentage of homozygous dominant individuals and heterozygous individuals. 14

UNIT–IV

7. Define gene flow. Explain the role of gene flow in impacting the human gene pool. 14

8. Define genetic drift. Explain the mechanism of genetic drift with example. 14

UNIT–V

9. Define population structure. Discuss the nature of non-random mating in human population. 14

10. Define eugenics. Explain the different types of eugenics. 14
