2024
M.Sc.
Fourth Semester
CORE – 11
ANTHROPOLOGY
Course Code: MANC 4.11
(Human Population Genetics)

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

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

UNIT–I

1. Discuss the history and development of human population genetics. 14

2. Discuss in detail the nature and significance of Mendelian population in population genetics. 14

UNIT–II

3. "Hardy-Weinberg equilibrium is a hypothetical theorem." Illustrate. 14

4. In a population of 23,787 in Kohima city, following frequencies for 4 blood types were recorded: type A - 9,943, type B - 2,379, type AB - 904 and type O - 10,561. Calculate the allelic and genotypic frequencies of all the blood type. 7+7=14

UNIT–III

5. Discuss in brief the inheritance pattern and prevalence of Thalassemia in human population. 14

6. Discuss the dermatoglyphic patterns and its variation in human population. 14

UNIT–IV

7. Examine and compare the concept of fitness and natural selection in evolution. 14

8. Define effective population size. Discuss in brief with suitable hypothetical example. 2+12=14

UNIT–V

9. Differentiate between random and non-random mating with examples. 14

10. Discuss the genetic consequences of inbreeding in human population with special reference to haemophilia. 14