'समानो मन्त्रः समितिः समानी'

UNIVERSITY OF NORTH BENGAL

B.Sc. Honours 5th Semester Examination, 2021

CC11-ANTHROPOLOGY (501)

HUMAN POPULATION GENETICS

Time Allotted: 2 Hours   Full Marks: 40

The figures in the margin indicate full marks.

SECTION-A

1.   Answer any *five* questions from the following: 1×5 = 5

   (a) Who proposed the theory of mutation?
   (b) Define gene frequency.
   (c) What is polygenic trait?
   (d) What is the function of messenger RNA?
   (e) What do you mean by inbreeding?
   (f) Who discovered the DNA double helix structure?
   (g) Who is known as the father of genetics?
   (h) Define population.

SECTION-B

2.   Answer any *three* questions from the following: 5×3 = 15

   (a) Write in brief on the application of Hardy-Weinberg Principle.
   (b) Write a short note on Mendelian inheritance.
   (c) Explain co-dominance with an example.
   (d) Write a short note on sex-linked inheritance.
   (e) Explain founder effect with examples.

SECTION-C

3.   Answer any *two* questions from the following: 10×2 = 20

   (a) What is Hardy-Weinberg Principle? What are the assumptions of Hardy-   2+3+5
       Weinberg Principle? Explain Hardy-Weinberg Principle mathematically.

   (b) Briefly discuss the factors affecting changes in gene frequency.

   (c) Explain the Mendelian Principle of segregation and independent assortment.

   (d) What is the difference between polygenic inheritance and multifactorial
       inheritance? Discuss with suitable examples.

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