



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours 5th Semester Examination, 2020, held in 2021

ANTACOR11T-ANTHROPOLOGY (CC11)

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate marks of question.
Candidates should answer in their own words and adhere to the word limit as practicable.*

1. Answer any **two** questions from the following: (within 800-1000 words each) 10×2 = 20
 - (a) Discuss the twin method of study as the methodology of Human Genetics. 10
 - (b) Write down Mendel's principles of inheritance. Discuss X-linked recessive modes of inheritance with suitable example. 5+5
 - (c) What is Hardy-Weinberg equilibrium law? Discuss its applications and alteration in evolutionary perspective. 4+6
 - (d) What is multiple allele? Discuss the inheritance patterns of any multiple allelic form in human with suitable example. 2+8

2. Answer any **two** questions from the following: (within 300-400 words each) 5×2 = 10
 - (a) Differentiate between Sex-linked and Sex-influence genetic traits.
 - (b) Discuss the dynamics of mutation as evolutionary force.
 - (c) Explain epistasis with example.
 - (d) Differentiate between random and assortative mating pattern.

3. Answer any **five** questions from the following: (within 30-50 words each) 1×5 = 5
 - (a) What is Y-linked inheritance?
 - (b) What is 'founder effect'?
 - (c) What is transient polymorphism?
 - (d) What is Co-dominance?
 - (e) What is Monohybrid Cross?
 - (f) What is Sickle cell trait?
 - (g) What is Phenocopy?
 - (h) What is inbreeding Co-efficient?

4. Answer the following questions by choosing the right option: 1×5 = 5
 - (a) Random Genetic drift is
 - (i) Micro-evolutionary force
 - (ii) Adaptation
 - (iii) Mutation
 - (iv) Segregation

- (b) Polydactyly is—
- | | |
|----------------------|---------------------|
| (i) Autosomal trait | (ii) X-linked trait |
| (iii) Y-linked trait | (iv) None of these |
- (c) Blood group Xg is an example of—
- | | |
|--------------------------|------------------------|
| (i) Y-linked | (ii) X-linked dominant |
| (iii) X-linked recessive | (iv) None of these |
- (d) Co-existence of Malaria and Sickle cell trait is an example of—
- | | |
|-------------------------|----------------------------|
| (i) Multiple existence | (ii) Balanced polymorphism |
| (iii) Multiple allelism | (iv) None of these |
- (e) Holandric inheritance is—
- | | |
|----------------|--------------------|
| (i) Autosomal | (ii) X-linked |
| (iii) Y-linked | (iv) None of these |

N.B. : *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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