Total No. of Printed Pages—4

5 SEM TDC ANTH (CBCS) C 11

2023

(November)

ANTHROPOLOGY

(Core)

Paper : C–11

(Human Population Genetics)

Full Marks : 53
Pass Marks : 21

Time : 3 hours

The figures in the margin indicate full marks for the questions

1. Choose the correct answer : 1×5=5

(a) A reproductive group of individuals that share a common gene pool is called

(i) community

(ii) Mendelian population

(iii) social group

(iv) tribe

(b) An exception of Mendel's law is

(i) dominance

(ii) independent assortment

(iii) purity of gametes

(iv) linkage

(c) Quantitative inheritance defines

(i) variation in environment

(ii) discrete characters

(iii) continuous variation of a trait

(iv) None of the above

(d) Hemophilia is an example of

(i) X-linked disorder

(ii) autosomal dominant disorder

(iii) Y-linked disorder

(iv) None of the above

(e) Chance elimination of allele from a small and isolated population is an example of

(i) adaptation

(ii) mutation

(iii) gene flow

(iv) genetic drift

2. Highlight the key milestones in the history of genetics till the discovery of the double helical structure of DNA by Watson and Crick. 9

Or

Define population genetics. Write the aim and scope of population genetics. 2+7=9

3. What do you mean by mode of inheritance? Elaborate the mode of inheritance of the autosomal dominant trait in man with suitable examples. 2+7=9

Or

What is multifactorial inheritance? Highlight the distinguishing characteristics of multi-factorial inheritance and single-factor inheritance with example. 2+7=9

4. What do you mean by genetic equilibrium? State clearly under what conditions, the genetic equilibrium is maintained in a population. 2+7=9

Or

Define genetic polymorphism. Discuss the genetic polymorphism of ABO blood group. 2+7=9

5. Briefly make a genetical comparison between Man and Apes. 9

Or

Write a brief note on human evolutionary genetics with special reference to modern molecular genetics. 9

6. Write short notes on any *three* of the following : 4×3=12

(a) Genotype and phenotype

(b) Transient polymorphism

(c) Gene flow

(d) Linkage disequilibrium

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