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SUBJECT CODE NO: - BB-2528
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. (CBCGS)(Pattern 2022) T.Y SEM VI
Examination November / December 2025
Botany-XXII Genetics and Evolution

[Time: 1:30 Hours]**[Max. Marks: 40]**

N. B

Please check whether you have got the right question paper.

- 1) Attempt all questions.
- 2) All questions carry equal marks.
- 3) Draw neat and well labelled diagrams whenever necessary

Q1 What is interaction of gene? Describe in detail complementary genes. 10

OR

- 1) Combo-shape in fowl
- 2) Hardy Weinberg law

Q2 Describe in detail X-linked inheritance with respect to colour blindness. 10

OR

- 1) Holandric gene
- 2) Phenylketonuria

Q3 Write short notes on (any two) 10

- 1) Amniocentesis
- 2) Multiple factor hypothesis
- 3) Darwinism

Q4 Multiple choice question. 10

- 1) When homozygous tall pea plant is crossed with dwarf pea plant, what will be the phenotypic ratio of offerings?
 a) 1:1 b) 1:2:1 c) 3:1 d) all plants are tall
- 2) In case of birds, under are _____
 a) zz b) zw c) xo d) zo
- 3) Phenylketonuria is a result of mobility of _____ enzyme to work.
 a) catalase b) phenylalanine hydroxylase
 c) Urease d) Phenylalanine ammonia lyase
- 4) Biological population of the same species becomes separated by geographical barrier is called _____
 a) Sympatric b) Parapatric c) Allopatric d) Peripatric
- 5) Group of all gene present in a population which can inbreed _____
 a) gene pool b) genetic drift c) hybrid d) None of the above
- 6) _____ is an example of quantitative inheritance.
 a) Ergot of Bajra b) seed colour in maize
 c) Kernel colour in wheat d) Plant height in sweet pea