

This question paper contains 2 printed pages]

VA—06—2024

FACULTY OF SCIENCE

B.Sc. (Third Year) (Sixth Semester) EXAMINATION

NOVEMBER/DECEMBER, 2024

(CBCS/New Pattern)

BOTANY

Paper—XIV

(Genetics and Plant Breeding)

(Saturday, 30-11-2024)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. :— (i) Attempt *all* questions.

(ii) Draw neat and well labelled diagrams wherever necessary.

1. What are supplementary genes ? Explain supplementary gene interaction with suitable example. 15

Or

Explain in brief :

(a) Complete linkage in *Drosophila*. 8

(b) Sex-linked inheritance with reference to colourblindness in man. 7

P.T.O.

2. What is pureline selection ? Describe process, merits and demerits of pure line selection. 15

Or

Describe in brief :

- (a) Plant introduction and acclimatization. 8
- (b) Applications of Mutational breeding. 7
3. Write short notes on (any two) : 10
- (a) Back cross and test cross
- (b) Turner's syndrome
- (c) Methods of emasculation
- (d) C.M.S.