

Bankura University

B.Sc 3rd SEMESTER(Honours) EXAMINATIONS, 2021

Subject: BOTANY

Course ID: 31314

Course Code: SHBOT/304/GE-3

Course Title: Genetics and Plant Breeding

Full Marks: 25

Time: 1 h 15 min

The figures in the margin indicate full marks

Answer all the questions.

UNIT-I

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

- (a) What do you mean by monohybrid cross?
- (b) What is co-dominance?
- (c) Name two chemical mutagens.
- (d) What is aneuploidy?
- (e) Mention two advantages of cross pollination?
- (f) What is acclimatization?
- (g) What do you mean by chromosomal inversion?
- (h) What is back cross?

UNIT-II

2. Give brief answer to *any two* of the following: 5×2= 10

- (a) Briefly describe the role of mutation in crop improvement with suitable examples.
- (b) What is crossing over? Briefly describe any one experiment regarding cytological proof of crossing over.
- (c) Describe the process of translocation with suitable diagram.
- (d) What is hybridization? Describe its advantages and limitations in brief.

UNIT-III

3. Answer *any one* questions from the following: 10×1=10

- (a) Describe the selection methods for cross pollinated crops. Write short note on heterosis.
- (b) Describe the role of biotechnology in crop improvement. Write short note on polyploidy.