

# Bankura University

B.Sc 5th SEMESTER(Honours) EXAMINATION, 2021

Subject: BOTANY

Course ID: 51317

Course Code: SHBOT/501/DSE-2

## Course Title: Plant Breeding

Full Marks: 40

Time : 2h

The figures in the margin indicate full marks

Answer all the questions.

### UNIT I

1. Answer *any five* of the following questions: (2x5=10)

- a) What do you mean by primary centre of origin?
- b) Distinguish primary introduction and secondary introduction.
- c) What do you mean by inbred line?
- d) What is clonal variability?
- e) What is meant by plant genetic resources?
- f) What do you mean by segregating population?
- g) What is test cross?
- h) Why tagging is required during hybridization experiment?

### UNIT II

2. Answer *any four* of the following questions: (5x4=20)

- a) Compare between mass selection and pure line selection.
- b) Write a short note on selection procedure from a segregating population in self pollinated crop.
- c) Write a short note on application of heterosis in plant breeding?
- d) What do you mean by apomixis? Mention different types of apomixes.
- e) What is exotic collection? What are merits and demerits of plant introduction?
- f) Explain quantitative inheritance with the help of suitable examples.

### UNIT III

3. Answer *any one* of the following questions: (10x1=10)

- a) What is polyploid breeding? Mention different types of polyploidy and their role in crop improvement.
- b) Why hybridization is required in plant breeding? Write down general technique for hybridization programme.