

## UG 5th Semester Examination 2021

### BOTANY(Honours)

Paper: DSE-1

[CBCS]

### (PLANT BREEDING)

*(Figures in the margin indicate full marks)*

Full Marks-25

Time - 2 Hours

1. Answer any *five* of the following:

1×5=5

- Define aneuploids.
- Mention the probable centre of origin of the rice plant (*Oryza sativa* L.).
- What is R-line or Restorer line?
- Write the full form of NBPGR.
- What are pure lines?
- What is Recurrent Apomixis?
- Mention the role of Seed Banks.

2. Answer any *four* of the following:

3×4=12

- Define inbreeding depression with examples.
- State the advantages of clonal selection.
- Write down the importance of cytoplasmic male sterility (CMS) in plant breeding.
- Compare primary and secondary introduction of crop plants.
- Briefly describe the contrivances of Cross-pollination in plants.
- Enumerate the significances of Heterosis.
- Briefly describe polygenic inheritance with an example.

3. Answer any *one* of the following:

8×1=8

- What do you mean by mutation breeding? Describe the procedure of mutation breeding in self-pollinated crops. State two demerits of mutation breeding. (2+4+2)
- Compare between pedigree method and bulk method of hybridization. What is the back cross method? (6+2)