

## 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
  - a. Define aneuploids.
  - b. Mention the probable centre of origin of the rice plant (*Oryza sativa* L.).
  - c. What is R-line or Restorer line?
  - d. Write the full form of NBPGR.
  - e. What are pure lines?
  - f. What is Recurrent Apomixis?
  - g. Mention the role of Seed Banks.
  
2. Answer any *four* of the following: 3×4=12
  - a. Define inbreeding depression with examples.
  - b. State the advantages of clonal selection.
  - c. Write down the importance of cytoplasmic male sterility (CMS) in plant breeding.
  - d. Compare primary and secondary introduction of crop plants.
  - e. Briefly describe the contrivances of Cross-pollination in plants.
  - f. Enumerate the significances of Heterosis.
  - g. Briefly describe polygenic inheritance with an example.
  
3. Answer any *one* of the following: 8×1=8
  - a. 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)
  - b. Compare between pedigree method and bulk method of hybridization. What is the back cross method? (6+2)