

U. G. 4th Semester Examination 2022

BOTANY (Honours)

Paper Code : DC-8

[CBCS]

Full Marks : 25

Time : Two Hours

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer any *five* questions of the following: 1×5=5
 - (a) What is C-mitosis?
 - (b) Define hybridization.
 - (c) What is cytoplasmic male sterility?
 - (d) What is MPF?
 - (e) What is Nuclear Localizing Signal (NLS)?
 - (f) What is the restorer line?
 - (g) Define test cross.
 - (h) Define clone.

 2. Answer any *four* questions of the following: 3×4=12
 - (a) Describe the ultrastructure of the chloroplast.
 - (b) Briefly state the role of Cdk in controlling the cell cycle.
 - (c) Describe briefly the function of microtubules in chromosome movement.
 - (d) Write the merits and demerits of Pedigree selection.
 - (e) Distinguish between the active and facilitated process of membrane transport.
 - (f) Write a short note on hybrid vigour.

 3. Answer any *one* question of the following: 8×1=8
 - (a) What is meiosis? Describe the different stages of meiosis with diagrammatic representation. 2+6=8
 - (b) Distinguish between pure line selection and mass selection. What are the methods of hybridization in self-pollinated crops? 4+4=8
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