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DCBN503

Reg. No.

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V Semester B.Sc. Degree Examination, March/April - 2024

**BOTANY**

**Genetics and Plant Breeding**  
**(NEP Scheme 2021 Freshers)**

**Paper : 6**



**Time : 2½ Hours**

**Maximum Marks : 60**

**Instructions to Candidates:**

1. Answer all parts.
2. Draw diagrams wherever necessary.

**PART - A**

**I. Define/Explain any FIVE of the following in two or three sentences. (5×2=10)**

1. Differentiate between homozygous and heterozygous condition.
2. State the law of segregation.
3. What is acclimatization?
4. What is chiasma?
5. What is inbreeding depression?
6. Mention any two roles of biotechnology in crop improvement.

**PART - B**

**II. Write critical notes on any FOUR of the following. (4×5=20)**

7. Incomplete dominance.
8. Linkage.
9. Chromosomal deletion and duplication.
10. Objectives of plant breeding.
11. Interspecific and intergeneric hybridization.

**[P.T.O.]**



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**PART - C**

**III. Give a comprehensive account of any THREE of the following questions. (3×10=30)**

12. Recessive epistasis with an example.

13. What is layering? Explain its types.

14. Quantitative inheritance.

15. a) Aneuploidy.

b) Mention any two advantages of hybridization.

**(8+2)**

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