

A

(20623)

M. Sc. (Ag.)-II Sem.

Roll No. &

12349

M. Sc.-(Ag.) Examination, June 2023

G. & P. B.

Breeding Cereals Millets & Sugarcane

[J-2024(New)]

Time Three Hours]

[Maximum Marks 50

Note Attempt questions from all Sections as per instructions.

Section-A

(Very Short Answer Type Questions)

Answer all the five questions. Each question carries 2 marks. Very short answer is required not exceeding 75 words.

2×5=10

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(2)

1. Abiotic stress resistance.
 2. Creation of drought environment
 3. How would you create variation in a clonal crop ?
 4. Disease tests.
- <https://www.validcollege.com> Transgenic disease resistance.

Section-B

(Short Answer Type Questions)

Answer any two questions out of the following three questions. Each question carries 5 marks. Short answer is required not exceeding 200 words.

5×2=10

6. What are the breeding methods of wheat ? Describe one of them briefly.

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7. What is the purpose of making hybrid rice ? Describe briefly.
8. What are the breeding methods and objectives of sugarcane ?

Section-C

(Long Answer Type Questions)

Answer any *three* questions out of the following five questions. Each question carries 10 marks.

Answer is required in detail. $10 \times 3 = 30$

9. Define drought resistance. Explain briefly the various mechanisms that contribute to drought resistance in wheat.

10. With the help of suitable examples describe the contribution of interspecific hybridization in the improvement of a usually reproducing crop like sugarcane.

11. Define heterosis. List its characteristic features, and discuss its application and achievement in wheat improvement.

12. What are molecular markers ? Describe its importance in rice breeding.

13. What is the breeding objective of millets ? Will 2023 be the year of millets ?