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B.Sc. (Agriculture) (Sem.–6) CROP IMPROVEMENT-II (RABI CROPS) Subject Code : BSAG-606-19 M.Code : 91797 Date of Examination : 17-01-2023

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

- 1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
- 2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
- 3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

- 1. Write briefly :
 - a) Nutrition quality of Fodders
 - b) Antiquality components in pulses
 - c) CGMS system in Brassica
 - d) Gene pool of Gram
 - e) GMOs
 - f) QPM
 - g) Interspecific hybridization in berseem
 - h) Nobilization of cane
 - i) Antibiosis
 - j) Virulence vs. Avirulence

SECTION-B

- 2. Briefly discuss the breeding for quality in Brassica.
- 3. What is distant/wide hybridization? Explain briefly the various barriers and their solutions in wide hybridization.
- 4. Discuss in detail, the three lines system of hybrid seed production in Sunflower.
- 5. List few strategies one should adopt for developing climate resilient crop varieties.
- 6. Define mutation. What are the characteristics of mutations and their role in plant breeding?

SECTION-C

- 7. What is recurrent selection? Discuss the methodology employed for RS and also mention their merits and demerits. Differentiate between RS and RRS.
- 8. (a) What are the objectives and future thrust points of sugarcane breeding?
 - (b) What can be the various breeding strategies used in oat improvement?
- 9. What are biotic stresses? Enlist various abiotic stresses and their impact on yield and quality of brassica. What are the various resistance mechanisms one breeder should look for to develop resistant varieties against these biotic stresses?

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.