

II Year, BSc (Hons.) Agriculture- I CFA, Commercial Plant Breeding (1+2)

School of Agriculture & Animal Sciences, GRI, Gandhigram

Date: 01.03.2022

Total Marks: 50

I. Answer the following questions

(10 x 1 = 10)

1. Define reproduction
2. Define male sterility
3. What is rouging?
4. Why supplementary pollination is essential for hybrid seed production?
5. What is isolation distance?
6. What is R line?
7. What is male to female ratio for hybrid seed production in Redgram?
8. State any two applications of anther culture
9. Write the expansion for SSR and RAPD
10. What is ovary culture?

II. Answer any four of the questions

(4 x 5= 20)

1. A) Assess the different lines involved male sterility in seed production of self- and cross-pollinated crops
(OR)
B) Elucidate factors affecting genetic purity during seed production
2. A) Prepare a short note on DNA test for hybrid seed purity assessment
(OR)
B) Write short notes on Classes of seed
3. A) What is meristem culture? List out the applications of meristem culture
(OR)
B) Prepare a short note on Marker assisted selection.
4. A) Describe the commercial hybrid seed production techniques for red gram
(OR)
B) Write the seed production technique for Chilli

III. Answer any Two of the following

(2 x 10 =20)

1. Define male sterility. Explain the different types of male sterility with suitable diagrams.
2. Explain the hybrid seed production techniques for cotton.
3. What is anther culture? Describe procedure, factors influencing, applications and limitations of anther culture.
