

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

**School of Agriculture & Animal Sciences, GRI, Gandhigram**

**Date: 25.04.2022**

**Total Marks: 50**

**I. Answer the following questions**

**(10 x 1 = 10)**

1. What is Plant breeder rights (PBRs)?
2. What is research exemption?
3. Write the advantages of PBR.
4. What is DUS test?
5. Differentiate released variety and notified variety
6. What is the use of tetrazolium test?
7. List out the instruments used for physical purity test of the seed.
8. Define seed vigour test.
9. What is breeder seed?
10. What is seed testing?

**II. Answer any four of the questions**

**(4 x 5= 20)**

1. A) Prepare a not on Plant breeders right, farmers right, & research exemption  
(OR)  
B) Explain the protection of plant varieties and farmers act, 2001 (PPV & FR act, 2001) with registration, criteria and certification.
2. A) Differentiate breeder seed, foundation seed and certified seed  
(OR)  
B) Write short notes on Classes of seed
3. A) Prepare a note on grow out test to evaluate the genetic purity of the seed  
(OR)  
B) Write a short note on seed germination test
4. A). Describe the genetic principles and techniques of the seed production  
(OR)  
B). Describe the Agronomic principles and techniques of the seed production

**III. Answer any Two of the following**

**(2 x 10 =20)**

1. What is the DUS test? How did the DUS test do? Explain the DUS test with criteria, examination, observation, grouping, design, and uses.
2. Explain the variety testing, release, and notification systems in India.
3. Discuss any of the four self- and cross-pollinated crop seed quality assessment tests.

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