

**PG AGRICULTURE**  
**M.Sc. in Genetics and Plant Breeding**  
**Semester-II Examination, 2023**  
**PAPER: GPB 510 (THEORY)**  
**(SEED PRODUCTION AND CERTIFICATION)**

**Full Marks: 50**

**Time: 3 Hours**

**GROUP-A**

**Answer any FIVE of the following questions:**

**2×5=10**

1. What is seed scarification?
2. Write the Harrington's thumb rule for seed viability.
3. Differentiate between off type plant and weed.
4. What is TL seed?
5. What do you mean by physical and genetical purity of seed?
6. Explain about Dockage percentage of seed.
7. What is grow-out test?
8. Define "seed village".
9. Differentiate between orthodox and recalcitrant seed.

**GROUP-B**

**Answer any FOUR of the following questions:**

**5×4=20**

1. Write a short note on minimum seed certification standards.
2. Briefly explain characteristics of improved seed.
3. Briefly discuss about the general principles of maintaining breeder's seed of newly released varieties of any crop.
4. Discuss in brief about hybrid seed production of sunflower.
5. Why picking and ginning is important for seed production of cotton
6. Explain the following point of seed production of wheat- i) Isolation requirement ii) Time of sowing iii) Seed rate iv) Irrigation v) Seed yield.
7. Write down the main features of PPV & FR Act 2001. Merits of PPV & FR Act 2001.
8. Briefly explain the cultural practices for seed production of pigeon pea.

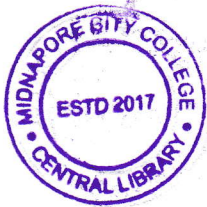
**GROUP-C**

**Answer any TWO of the following questions:**

**10×2 =20**

1. Discuss the maintenance of Nucleus seed of Inbred lines.
2. What is varietal deterioration? Briefly explain Factors influencing the varietal deterioration.

*(P.T.O.)*



(2)

3. Discuss in detail about the basic principles of seed certification with special reference to a) different seed classes subjected to certification, b) field inspection and reinspection, c) sampling of seeds. 4+4+2
4. Discuss in detail about the single cross hybrid seed production using CGMS in maize.

