

B.Sc. Semester - 4 (NEP-2020) Examination**March/April-2025****Plant Breeding (Skill Enhancement Course)****Time: 1:00 Hours****Marks: 25****Instructions:**

1. All questions are compulsory.
 2. Figures to the right indicate marks.
 3. Illustrate your answer with neat and labelled diagrams.
-

- Que-1 (A) Describe in detail (Any one): (06)
1. Define plant breeding and explain the major objectives of plant breeding.
 2. What is grafting? Explain any two types of grafting along with their procedures.
- Que-1 (B) Write short notes on (Any one): (04)
1. Undesirable consequences of plant breeding
 2. Important achievements of plant breeding
- Que-2 (A) Describe in detail (Any one): (06)
1. What is polyploidy? Explain the role of polyploidy in crop improvement.
 2. Describe the steps involved in the pure line selection method and its advantages.
- Que-2 (B) Write short notes on (Any one): (04)
1. Significance of heterosis in crop improvement
 2. Any two steps of hybridization procedure
- Que-3 Answer according to instructions (Any five): (05)
1. What is one limitation of vegetative propagation?
 2. What is one undesirable consequence of plant breeding?
 3. Why is genetic diversity important in plant breeding?
 4. Define: inbreeding depression.
 5. What is the main advantage of heterosis in crop production?
 6. Why is emasculation done in hybridization?
 7. Give an example of a successful distant hybrid.
