

Instructions:

- All questions in **Section-I** carry equal marks.
- Attempt any **Three** questions in **Section-I**.
- All questions in **Section-II** are **COMPULSORY**.

Section-I

- Q-1 A. What is Plant breeding? Explain its objectives, origin and hybrid vigour. [07]
 B. Explain in detail Marker assisted selection. [07]
- Q-2 A. Give principles and methods of plant breeding in self pollinated crops. [07]
 B. Write in short note on NBPGR. [07]
- Q-3 A. What is Dormancy? Give methods to break dormancy. [07]
 B. Give brief account on Hi-tech horticultural techniques used for the propagation and post harvest storage of plants. [07]
- Q-4 A. Write a short note on Grafting and Layering. [07]
 B. Explain propagation by seeds and describe its harvesting, storage and viability. [07]
- Q-5 A. Explain in detail Xeriscaping. [07]
 B. Give general account on Green house. [07]
- Q-6 A. Discuss the role of CPCRI and APEDA. [07]
 B. Write a short note on Organic farming. [07]
- Q-7 A. Give a note on Food technology for better health. [07]
 B. Explain in detail Biogas technology. [07]
- Q-8 A. Discuss energy efficient growing techniques in brief. [07]
 B. Write a short note on Carbon credit concepts. [07]

Section-II**Q-9 MCQs:**

1. What are Root suckers? [08]
- A) New plant parts that arise from the branches of fruit trees
 - B) Insects that suck nutrients from the roots of the plants
 - C) Shoots that arise from the roots to form new plants
 - D) Roots of neighbouring plants that share water with the another plant

E 554-2

2. Which of the following increases the soil pH?
 - A) Lime
 - B) Sand
 - C) Magnesium
 - D) Nitrogen
 3. Which statement is correct about cloned plants?
 - A) Cloned plants are genetically superior to the parent plant
 - B) Cloned plants are genetic duplicates of the parent plant
 - C) Cloned plants are genetically superior to the plants propagated from the seeds
 - D) Meiosis is the part of the cloning process that produces the plant
 4. Plants that shed their leaves in autumn are known as ____.
 - A) Deciduous
 - B) Evergreen
 - C) Biennials
 - D) Annuals
 5. Which is not true for Plant breeding?
 - A) Provides disease resistant plants
 - B) Helps to increase the yield of crops
 - C) Plants that are not suited for cultivation
 - D) Purposeful manipulation of plant species
 6. Xeriscaping is a landscaping process that requires ____.
 - A) Water conservation
 - B) Draining water from landscape area
 - C) Arid landscaping
 - D) No water in landscape
 7. Full form of APEEDA is ____.
 - A) Agricultural and Procured Food Products Export Development Authorization
 - B) Authority of Processed Food Products Export and Design
 - C) Agricultural Plants Extension and Development Authority
 - D) Agricultural and Processed Food Products Export Development Authority
 8. Art of shaping plants into geometric shapes is called as ____.
 - A) Bonsai
 - B) Topiary
 - C) Pot pourri
 - D) Ikebana
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