

MSc Sem.-2 Examination

410

Botany

May-2025

Time : 2-30 Hours]

[Max. Marks : 70

Instructions: All Questions carry equal marks
Attempt all Questions

- Q I Write a detailed account on methods of Plant breeding for self-pollinated and cross-pollinated crops. 14
- OR
- Q I A. Define the term 'Plant breeding'. Write a note on Reverse breeding and participatory breeding. 7
- B. Explain the term 'Plant introduction'. Write the procedure, merits and demerits of Plant introduction. 7
- Q II Write a note on propagation of plants through seeds and vegetative structures. What are the pre-treatments that must be given to these plant materials to avoid contamination? 14
- OR
- Q II A. Write a note on important horticultural crops of India. 7
- B. Write a brief account on anatomical and physiological aspects of rooting of cuttings. 7
- Q III Write a detailed note on Integrated pest management with its advantages and disadvantages. 14
- OR
- Q III A. Write a note on garden elements and types of gardens found in India with examples. 7
- B. What are the key characteristics of organic farming? Explain how organic farming is better than conventional farming. 7
- Q IV Write a note on Food technology for better health. According to some experts, the development of processed food industry has done more harm to the human society than good. Do you support this statement? Justify your answer. 14
- OR
- Q IV A. Write a note on energy efficient growing techniques. 7
- B. Write a note on green building. Mention its advantages over conventional buildings. 7
- Q V Attempt any 7 out of 12 MCQs/Short question (One- or Two-line answer)/ Fill in the blanks/True or False etc. 14
- 1 Give the full form of 'NBPGR'. 2
 - 2 Write two advantages of cross-pollination over self-pollination. 2
 - 3 What is the difference between 'pure lines' and 'clones' in plant breeding? 2
 - 4 All the following are functions of the post-harvest processing hormone ethylene EXCEPT- 2

(P.T.O)

- A) promote senescence
 - B) enhances abscission
 - C) promote ripening
 - D) induces cell division
- 5 Hybrid vigor in vegetables is manifested by: 2
- A) High yield
 - B) Uniformity in size
 - C) Uniformity in maturity
 - D) All of the above
- 6 Sweet potato is propagated by: 2
- A) Stem cuttings
 - B) Tubers
 - C) Roots
 - D) Both A & B
- 7 Give full form of 'NABARD'. 2
- 8 What is the primary reason for pruning fruit trees? 2
- A) To make the trees look more attractive
 - B) To reduce the height of the trees
 - C) To improve air circulation and light penetration
 - D) To ease the removal of all fruits from the trees
- 9 Write two advantages of xeriscaping. 2
- 10 Biogas consists mainly of which gases? 2
- 11 What is 'carbon credit'? 2
- 12 Explain the term 'low carbon landscape'. 2
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