

# Agriculture & Soil Combined

**2023**

**HPSC**

Time : 3 hours ]

[ Maximum Marks : 150

## **QUESTION PAPER SPECIFIC INSTRUCTIONS**

**( Please read each of the following instructions carefully before attempting questions )**

- (i) There are **eighteen (18)** questions, all printed in English only.
- (ii) Candidate has to attempt any **fifteen (15)** questions in all.
- (iii) Each question carry **ten** marks.
- (iv) Word limit in questions, wherever specified should be adhered to.
- (v) Attempts of questions shall be counted in sequential order. Unless struck off, attempt of a question will be counted even if attempted partly. Any page or portion of the page left blank in the question-cum-answer booklet must be clearly struck off.
- (vi) Answer to the questions must be confined only to the space provided for each question. No extra/additional sheet will be provided.
- (vii) Answer must be written in the authorized medium. No marks will be given for answers written in a medium other than the authorized one.

- Handwritten text in green ink, possibly a name or title, is visible at the top of the page.*
1. What are the different types of male sterility usually found in crop plants? Enumerate with examples. **(Word limit 300)** 10
  2. Write your understanding of Soil Health Card Programme launched by the Government of India, the progress achieved so far and your suggestions for its improvement, if any. **(Word limit 300)** 10
  3. Briefly explain the role and responsibilities of KVKs in India. **(Word limit 300)** 10
  4. Give an overview of Integrated Weed Management. **(Word limit 300)** 10
  5. What is greenhouse effect? Describe the phenomenon of global warming. **(Word limit 300)** 10
  6. Differentiate between C-3 and C-4 plants. **(Word limit 300)** 10
  7. Agroforestry enhances productivity on a sustainable basis. Substantiate. **(Word limit 300)** 10
  8. Explain how salicylic acid and jasmonic acid play a vital role in plant defense. **(Word limit 300)** 10
  9. What are the applications and benefits of precision agriculture? **(Word limit 300)** 10
  10. What are the physiological disorders of tomato and their remedies? **(Word limit 300)** 10
  11. What is mutation breeding? Discuss the role of mutation breeding in crop improvement with suitable examples in context of India. **(Word limit 300)** 10
  12. How can the use efficiency of N, P and K fertilizers be enhanced in crop production, nutrient-wise? **(Word limit 300)** 10

13. What are all soil and water conservation techniques practised in dryland area? **(Word limit 300)** 10
14. Explain Intellectual Property Rights and measures taken by the Government of India to protect the rights of breeders and farmers. **(Word limit 300)** 10
15. Differentiate between mass selection and bulk method of selection. **(Word limit 300)** 10
16. Briefly explain the global initiatives taken up to address the global climate change. **(Word limit 300)** 10
17. How are plantations useful to meet energy requirements in India? **(Word limit 300)** 10
18. What are pesticide formulations and their mode of action? **(Word limit 300)** 10

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