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MPSC Forest Service (Mains)

**Previous Year Paper
(Agriculture)**

10 May, 2025





2024

Y19

BOOKLET NO.

180201

Forest Services Agriculture

Time Allowed : Three Hours

Maximum Marks : 200

Medium : English

Type of Paper : Conventional

Question Paper Specific Instructions

Please read each of the following instructions carefully before attempting questions :

1. There are **EIGHT** questions divided in two Sections, out of which **FIVE** are to be attempted.
2. Questions no. 1 and 5 are compulsory. Out of the remaining questions, **THREE** are to be attempted choosing at least **ONE** question from each Section.
3. The number of marks carried by a question/sub question is indicated against it.
4. Keep in mind the word limit indicated in the question if any.
5. Wherever option has been given, only the required number of responses in the serial order attempted shall be assessed. Unless struck off, attempt of a question shall be counted even if attempted partly. Excess responses shall not be assessed and shall be ignored.
6. Candidates are expected to answer all the sub-questions of a question together. If sub-question of a question is attempted elsewhere (after leaving a few page or after attempting another question) the later sub-question shall be overlooked.
7. Any page or portion of the page left blank in the Answer Booklet must be clearly struck off.
8. Unless otherwise mentioned, symbol and notation have their usual standard meanings. Assume suitable data, if necessary and indicate the same clearly.
9. Neat sketches may be drawn, wherever required.
10. The medium of answer should be mentioned on the answer book as claimed in the application and printed on admission card. The answers written in medium other than the authorized medium will not be assessed and no marks will be assigned to them.

Note – 1. Candidates will be allowed to use Scientific (Non-programmable type) calculators.

P.T.O.

SEAL

**SECTION – A**

Q1. Write short notes on **any five** from seven. **(8×5=40)**

- (a) Define water requirement, its formulae and explain different approaches of estimation of water requirement.
- (b) Explain soil survey and mapping in agriculture, types of surveys and their interpretations.
- (c) Explain agriculture marketing, its characteristics and Role and functioning of regulated markets.
- (d) Describe the difference between Formal and Agriculture extension education and its principles.
- (e) Describe the role of Indigenous technical knowledge in Indian agriculture and explain its various sources.
- (f) Explain various mechanical means of Soil Erosion control.
- (g) Describe the Agro-ecological zones of India.

Q2. (a) Define tillage and its importance in Agriculture and explain modern concepts of tillage. **15**

(b) What is land degradation ? Explain the major factors affecting degradation with its conservation technologies. **15**

(c) Describe market policies and current issues in agricultural marketing. **10**

Q3. (a) Explain in detail about definition, concept and Evolution of Sustainable Agriculture and describe the Organic Farming concept and various systems for Sustainable Agriculture. **15**

(b) What are major principles of Extension education ? Explain in detail about New/Modern communication technologies in Agriculture. **15**

(c) Explain in detail the drought, classification of drought, plant adaptation to drought, drought tolerance and strategy for dry land agriculture. **10**

Q4. (a) Explain in detail about Herbicide Resistance in weed and its management, Bioherbicides and Biotechnological approaches in weed management. **15**

(b) Explain in detail about saline, alkaline and sodic soil. Its impact on plant growth and reclamation of problematic soil. **15**

(c) Explain about Farm Budgeting, types, steps in Budgeting, Farm credit and cost concept. **10**

**SECTION – B**

Q5. Solve **any five** out of seven. **(8×5=40)**

- (a) What are the objectives of plant breeding ? Describe in short.
- (b) Write short note on growth curve.
- (c) Describe the cultivation practices of coconut on following aspects
 - i) Climate and soil.
 - ii) Manuring and fertilization.
 - iii) Irrigation.
 - iv) Harvesting and yield.
- (d) Comment on integrated pest and disease management.
- (e) Write down the mode of pollination.
- (f) Conditions required for seed germination.
- (g) Describe in short inter-specific and inter-genetic hybridization.

Q6. (a) Sexual and asexual reproduction in crop plants. **15**

- (b) How is water absorbed by the plant ? Describe the various external and internal conditions affecting the rate of absorption. **15**
- (c) Write in detail the cultivation practices of chilli on following points. **10**
 - i) Climate and soil.
 - ii) Varieties.
 - iii) Manuring and fertilization.
 - iv) Irrigation.

Q7. (a) Define biotechnology and discuss the relevance of biotechnology in Indian agriculture. **15**

- (b) Write in detail the storage pests and diseases of cereals and pulses and their control. **15**
- (c) Write short note on self-incompatibility. **10**

Q8. (a) Describe the applications of the backcross method and write down its merits and demerits. **15**

- (b) Write in detail the preservation methods of important fruits and vegetables. **15**
- (c) Write short note on biological control of pests and diseases. **10**

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