Civil Services (Main) Examination, 2011

AGRICULTURE

(Paper I)

Time Allowed : Three Hours **Maximum Marks : 300**

QUESTION PAPER SPECIFIC INSTRUCTIONS

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

There are EIGHT questions divided in two Sections.
Candidate has to attempt FIVE questions in all.
Question Nos. 1 and 5 are compulsory and out of the remaining, any THREE are to be attempted choosing at least ONE question from each Section.
The number of marks carried by a question/part is indicated against it.
Wherever any assumptions are made for answering a question, they must be clearly indicated.
Word limit in questions, wherever specified, should be adhered to.

SECTION 'A'

1. Write short notes on the following in about 150 words each:– **15×4=60**

(a) Importance of agro-ecological factors in land use planning.

(b) Integrated nutrient management for sustainable agriculture.

(c) Surface and sub-surface drip irrigation.

(d) Biological weed control.

2. (a) Explain the fertigation giving its merits. Give suitable fertilizers of major nutrients used in fertigation through micro-irrigation. **30**

(b) Enumerate fertigation equipments along with their merits and demerits. **30**

3. Differentiate between the following terms:– **10×6=60**

(a) Sheet erosion and rill erosion.

(b) Agroforestry and social forestry.

(c) Organic and inorganic colloids of soil.

(d) Chemical fertilizers and bio-fertilizers.

(e) Selective and non-selective herbicides.

(f) Mineralization and immobilization.

4. (a) Enlist important greenhouse gases. How can agriculture affect climate change? Describe the importance of carbon sequestration. **40**

(b) What are the different methods of planting sugarcane? **20**

SECTION 'B'

5. Write short notes on the following in about 150 words each:– **15×4=60**

(a) Importance of available soil moisture in irrigation water management.

(b) Principles of treatment of industrial effluent for irrigation purpose.

(c) Kisan call centre.

(d) Crop insurance.

English version compiled from published transcriptions and cross-checked across sources; not a facsimile of the official UPSC question paper.

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6. **(a)** Explain integrated watershed management as a hydrological unit. Describe the principles and objectives of watershed management. Describe the benefits and causes of deterioration of watershed. **30**

(b) What is extension programme planning? Explain principles and steps of extension programme planning. How will you evaluate an extension programme? **30**

7. **(a)** What is the importance of agricultural marketing? Explain the physical and institutional infrastructure of marketing and market intelligence. **30**

(b) What is expert system? How can it help in disseminating information to the farmers across the country in the scarce situation of human and financial resources to extension? **30**

8. Explain the following:–

15×4=60

(a) Problems of waterlogged soils.

(b) Residual Sodium Carbonate (RSC) in irrigation water.

(c) Role of self help group in empowering rural women.

(d) Criteria of scheduling irrigation.

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