Question Paper Specific Instructions

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

There are EIGHT questions in all, out of which FIVE are to be attempted.

Questions no. 1 and 5 are compulsory. Out of the remaining SIX questions, THREE are to be attempted selecting at least ONE question from each of the two Sections A and B.

Attempts of questions shall be counted in sequential order. Unless struck off, attempt of a question shall 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.

All questions carry equal marks. The number of marks carried by a question/part is indicated against it.

Answers must be written in ENGLISH only.
SECTION A

Q1. Answer the following in about 150 words each: 8×5=40

(a) Enlist the agroclimatic zones of India and give their important cropping patterns. 8
(b) What is rainfed farming? Discuss the technologies for stabilizing agriculture production in rainfed areas. 8
(c) Maintenance of soil health needs regular recycling of lignocellulolytic materials to the soil. Justify. 8
(d) What is multiple cropping? Give its significance in increasing the crop production. 8
(e) Discuss the effect of environmental factors on crop distribution and production. 8

Q2. Answer the following in about 200 words each: 10×4=40

(a) Discuss how the agroforestry system helps in improving the livelihood of rural people. 10
(b) Mention the principles of weed management and give their merits and demerits. 10
(c) Define runoff, give factors affecting it and explain soil loss equation during water erosion. 10
(d) Highlight the effects of environmental pollution on living beings. 10

Q3. Answer the following in about 200 words each: 10×4=40

(a) Justify the importance of forms of nutrients, their concentrations and ratios to other nutrients in soil for their uptake and crop growth. 10
(b) Discuss how contingent crop planning helps in dryland agriculture. 10
(c) Explain green-house effect and sources of their emission. 10
(d) Describe aquatic weeds and their control management. 10

Q4. Answer the following in about 200 words each: 10×4=40

(a) Discuss the major constraints in pulse production in India. 10
(b) What is propagation? Give advantages of micro-propagation with reference to plantation plants. 10
(c) What is soil genesis? Discuss the role of factors of soil formation. 10
(d) What soil and water conservation practices are required to be adopted under hilly regions? 10
SECTION B

Q5. Answer the following in about 150 words each:

(a) Define and explain consumptive use of water, evapotranspiration and water use efficiency.

(b) Discuss the significance of advance farm planning for optimum use of resources.

(c) What is agricultural cooperative farming? In what way is cooperative farming helpful to small and marginal farmers?

(d) Describe agricultural price policy and instruments of price policy.

(e) Discuss the role of farmers’ participation in identifying needs of the area for planning and development.

Q6. Answer the following in about 200 words each:

(a) What are drip and sprinkler irrigation? Give their merits and demerits.

(b) How does the principle of opportunity cost help farmers to decide what to grow?

(c) Explain marketing of farm products and marketing functions.

(d) What is programme planning? Explain its evaluation.

Q7. Answer the following in about 200 words each:

(a) How is drainage important? Explain its types.

(b) What is farm budgeting? How is it important to farmers?

(c) Give different approaches to study marketing and problems in marketing of agricultural produce.

(d) How do self-help groups help to provide economic empowerment to rural women?
Q8. Answer the following in about 200 words each:  

(a) What is selective mechanization and progress of farm mechanization? Explain advantages and disadvantages of farm mechanization.  

(b) How is indigenous technical knowledge (ITK) useful to formulate the future programmes?  

(c) Specify the criteria for time of irrigation.  

(d) Discuss the importance of farm management and its scope, with characteristics.