

CSM : 15

AGRICULTURE

PAPER - I

Time Allowed : 3 hours

Full Marks : 100

Marks for each question is indicated against it.

Attempt any 5 (five) questions taking not more than 3 (three) questions from each Part.

PART A

1. Discuss the impact of climate change on hill agriculture. Describe the national and global initiative for mitigating the effect of climate change on agriculture. **(10+10=20)**
2. Write short notes on any four in about 200 words each: **(4×5=20)**
 - (a) Organic and Precision farming.
 - (b) Diversified farming system.
 - (c) Sustainable agriculture.
 - (d) Cropping system and farming system.
 - (e) Biological weed control.
3. (a) Discuss the Integrated Farming System (IFS) and describe the feasible enterprise diversification for Mizoram with special reference to small landholdings. **(10)**
(b) What is farm planning and what are its objectives? What are the principal characteristics of a good farm plan? **(10)**
4. (a) What do you mean by agricultural extension? What are the methods of evaluation of extension programmes? **(10)**
(b) Describe the importance and role of self help group in the context of tribal and marginal farmers. Discuss the role of KVK in effective transfer of technology to the farmers in India. **(10)**

PART B

5. What are the features and scope of various forestry plantations? Discuss that agro-forestry is a promising alternative to the traditional cropping pattern. **(10+10=20)**
6. (a) Differentiate between the following terms: **(2×5=10)**
(i) Soil fertility and soil productivity.
(ii) Soil texture and soil structure.
- (b) What are the characteristics of acidic soil? Explain the behaviour and management of major nutrients in acidic soil. **(10)**
7. (a) Define dry land farming and discuss the measures for stabilisation of crop production in rain fed areas. **(10)**
- (b) Define watershed, basin and catchment. What are the factors and steps involved in integrated watershed management? **(10)**
8. Write in brief any four of the following: **(4×5=20)**
- (a) Soil management under water stress condition.
- (b) Effects of industrial effluents on soil and water pollution.
- (c) Rain water harvesting.
- (d) Water use efficiency in relation to crop production.
- (d) Drip and sprinkler irrigation.

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