

**CSM : 14**

**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. Write short notes on any four of the following. **(5×4=20)**
  - (a) Geographic information system (GIS)
  - (b) Conservation of natural resources
  - (c) Use of remote sensing in agriculture
  - (d) SHG in rural development
  - (e) Sustainable agriculture
  
2. Discuss major approaches for boosting food grain production in rainfed area with special reference to North East India. **(20)**
  
3. Write short notes on any four **(4×5=20)**
  - (a) Sugarcane ratooning
  - (b) Farmers and research linkage
  - (c) Farm planning and budgeting
  - (d) Role of Krishi Vigyan Kendra (KVK) in technology dissemination
  - (e) Agricultural price policy
  
4. Classify herbicides used for weed control with examples. Discuss the advantages and limitations of using herbicides in Crop production. What precautions should be taken during their application? **(8+6+6=20)**

**PART B**

5. Write short notes on any four of the following. **(4×5=20)**
- (a) Irrigation water quality
  - (b) Agro-forestry and Social Forestry
  - (c) Soil fertility and productivity
  - (d) Problem soil
  - (e) Podzolization and Laterization
6. Fertilizer is an expensive input but is not efficiently used. Write in detail the strategy for optimal use of fertilizer for maximization by small farmers. **(20)**
7. Discuss the problem of soil erosion in North East region. Write the mechanism and factors affecting them. Suggest measures for soil and water conservation. **(6+6+8=20)**
8. Write short notes on any four of the following. **(4×5=20)**
- (a) Integrated watershed management
  - (b) Nitrogen fixation in soil
  - (c) Effects of industrial effluents on soil and water pollution
  - (d) Bio-Fertilizer
  - (e) Irrigation scheduling

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