

# 17677

**16172**

**3 Hours / 100 Marks**

Seat No.

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- Instructions* – (1) All Questions are *Compulsory*.  
(2) Answer each next main Question on a new page.  
(3) Figures to the right indicate full marks.  
(4) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

**Marks**

- 1. Attempt any FIVE of the following:** **20**
- a) Explain present world scenerio, in relation to greenhouse.
  - b) Describe poly tunnels.
  - c) Classify greenhouse, on the basis of its shape.
  - d) What is ‘rock wool’? State its properties.
  - e) Define ‘growth media’. State properties of ‘root media’.
  - f) Name ‘glazing’ materials. State characteristics of any one.
  - g) Explain principle of overhead sprinklers.
- 2. Attempt any TWO of the following:** **16**
- a) (i) State desirable properties of glass, as used for greenhouse.  
(ii) Name types of soil. Describe any one.
  - b) (i) Explain necessity of greenhouse heating. **3**  
(ii) Describe a method of controlling temperature in greenhouse. **5**
  - c) (i) Explain location criteria of farm stead.  
(ii) Name types of farm stead. Describe any one.

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- 3. Attempt any TWO of the following: 16**
- a) Explain site-selection and orientation aspects for green-house.
  - b) Describe interaction of humidity and water on crop regulation.
  - c) Explain the method of perimeter watering.
- 4. Attempt any TWO of the following: 16**
- a) Describe process of:
    - (i) flooding,
    - (ii) leaching
  - b) Describe an equipment used for heating and controlling greenhouse temperature. Describe its working.
  - c) (i) Explain need of farm-fencing. 3
  - (ii) Write constructional features of a “cafe house”. 5
- 5. Attempt any TWO of the following: 16**
- a) (i) State different agro - climatic zones in India.
  - (ii) What is green house effect. State the advantages of it.
  - b) (i) Describe greenhouse heating.
  - (ii) Explain ‘forced-cooling’ technique.
  - c) Describe typical water supply and sanitation system for poultry houses.
- 6. Attempt any FOUR of the following: 16**
- a) Describe design of a low cost greenhouse.
  - b) Explain any two chemical properties of growth media.
  - c) How do ‘micro-irrigation’ differ from conventional irrigation?
  - d) Explain working of a side-ventilator.
  - e) State rules of watering.
  - f) Describe drip-irrigation system.
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