

012A - Botany Paper-I : Reproductive Biology of Angiosperms, Plant Growth and Development

P. Pages : 2

Time : Three Hours



GUG/W/22/11598

Max. Marks : 50

- Notes :
1. All questions are compulsory and carry equal marks.
 2. Illustrate your answer with suitable examples and well labeled diagrams wherever necessary.

1. Write notes on:

- a) Define pollination. Describe Contrivances of Cross pollination. **5**
- b) Describe megasporogenesis and female gametophyte structure in *Polygonum*. **5**

OR

Write short notes on:

- c) Structure of stamen. **2½**
- d) L.S. of anatropous ovule (Diagram only) **2½**
- e) Self pollination. **2½**
- f) Rewards of pollination **2½**

2. Write notes on:

- a) Explain Onagrad type of embryo development. **5**
- b) Seed dispersal mechanism by animals. **5**

OR

Write short notes on:

- c) Double fertilization. **2½**
- d) Types of endosperm (any two) **2½**
- e) Causes of seed dormancy. **2½**
- f) Ecological adaptations of seed. **2½**

3. Write notes on:

- a) Define growth. Explain phases of growth. **5**
- b) Explain Nastic movement. **5**

OR

Write short notes on:

- c) Role of Abscisic acid. 2½
- d) Role of cytokinins. 2½
- e) Role of auxins. 2½
- f) Tropic movement (any two) 2½

4. Write notes on:

- a) Define abscission. Describe the process of abscission in plants. 5
- b) Define photoperiodism. Explain its types. 5

OR

Write short notes on:

- c) Vernalization. 2½
- d) Pr and Pfr forms. 2½
- e) Circadian rhythm. 2½
- f) Senescence. 2½

5. Write answers to **any ten** in two or three lines only. Diagrams not necessary. **1x10
=10**

- a) Synergid.
- b) Microsporogenesis.
- c) Tapetum.
- d) PEN
- e) Suspended animation.
- f) Porogamy.
- g) Development.
- h) Gaseous hormone.
- i) Bakane disease
- j) Florigen
- k) De-vernalization
- l) Photoperiod.
