

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

P. Pages : 2

Time : Three Hours



GUG/S/23/11598

Max. Marks : 50

- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw well labelled diagram wherever necessary.

1. Write notes on :
- a) Development of male gametophyte. 5
 - b) Types of embryo sac. 5
- OR**
- Write short notes on :
- c) Orthotropous ovule (only diagram) 2½
 - d) Structure of stamen 2½
 - e) Types of Pollination 2½
 - f) Female gametophyte (Polygonum type) 2½
2. Write notes on :
- a) Double fertilization and triple fusion. 5
 - b) Development of Dicot embryo. 5
- OR**
- Write short notes on :
- c) Types of Endosperm. 2½
 - d) Zoochory 2½
 - e) Causes of seed dormancy 2½
 - f) Significance of seed. 2½
3. Write notes on :
- a) Role of Gibberlin 5
 - b) Tropic movements. 5

OR

Write short notes on :

- c) Phase of growth 2½
- d) Ethylene 2½
- e) Nastic movements (any two) 2½
- f) Abscisic acid 2½

4. Write notes on :

- a) Photoperiodism 5
- b) Abscission general account 5

OR

Write short notes on :

- c) Vernalization 2½
- d) Circadian rhythm 2½
- e) Pr and Pfr forms 2½
- f) Concept of florigen 2½

5. Write on two-three lines **any ten** diagram is not necessary. 10

- a) Self sterility
- b) Secretory tapetum
- c) Nector
- d) Crucifer type embryo
- e) Scarification
- f) Anemochory
- g) Cytokinin
- h) Auxin
- i) Development
- j) Senescence
- k) Phytochrome
- l) Photoperiod
