

B.Sc. - II (CBCS Pattern) Sem-III  
**012A - Botany Paper-I (Reproductive Biology of Angiosperms,  
Plant Growth & Development)**

P. Pages : 2

Time : Three Hours



**GUG/W/23/11598 (S)**

Max. Marks : 50

- Notes :
1. All questions are compulsory and carry equal marks.
  2. Draw well labelled diagram wherever necessary.
  3. Illustrate your answer with suitable examples.

**1.** Write on-

- |  |   |
|--|---|
| a) Internal structure of mature Anther.                            | 5 |
| b) Define pollination? Write on contrivances of cross pollination. | 5 |

**OR**

Write short notes on-

- |   |    |
|---|----|
| c) Anatropous ovule (only diagram)            | 2½ |
| d) Rewards for pollinators.                   | 2½ |
| e) Structure of Pistil.                       | 2½ |
| f) Structure of polygonum type of Embryo sac. | 2½ |

**2.** Write on-

- |  |   |
|--|---|
| a) Seed dormancy & its causes.         | 5 |
| b) Onagrad Type of Embryo development. | 5 |

**OR**

Write short notes on-

- |  |    |
|--|----|
| c) Cellular endosperm.                   | 2½ |
| d) Ecological adaptation of seed.        | 2½ |
| e) Anemochory.                           | 2½ |
| f) Double fertilization & Triple fusion. | 2½ |

**3.** Write on-

- |                              |   |
|------------------------------|---|
| a) Role of Auxin.            | 5 |
| b) Nastic movement in plant. | 5 |

**OR**

Write short notes on-

- |                         |    |
|-------------------------|----|
| c) Hydrotropism.        | 2½ |
| d) Phototropism.        | 2½ |
| e) Role of Gibberellin. | 2½ |
| f) Role of ABA.         | 2½ |

**4.** Write on-

- |                    |   |
|--------------------|---|
| a) Photoperiodism. | 5 |
| b) Senescence.     | 5 |

**OR**

Write short notes on-

- |                      |    |
|----------------------|----|
| c) Phytochrome.      | 2½ |
| d) Biological clock. | 2½ |
| e) Florigen.         | 2½ |
| f) Vernalization.    | 2½ |

**5.** Write on the following in one-two lines only (Diagrams are not necessary) (**any ten**). **10**

- |                      |                       |
|----------------------|-----------------------|
| a) Microsporogenesis | b) Homogamy           |
| c) Funicle           | d) Helobial endosperm |
| e) Scarification     | f) Endospermic seed   |
| g) Ethylene          | h) Chemotropism       |
| i) Backanae disease  | j) LDP                |
| k) Abscission layer  | l) Devernalization    |

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