

M.Sc. Semester-I (C.B.C.S. Scheme) Examination
BOTANY
(Plant Development and Reproduction)
Paper-IV

Time : Three Hours]

[Maximum Marks : 80

Note :—(1) All questions are compulsory and carry equal marks.

(2) Draw well labelled diagrams wherever necessary.

1. Give an elaborated account on construction of reserve food through constructive biochemical pathways. 16

OR

Discuss on physiological mechanisms in relation to dormancy of seeds. Add a note on methods used for breaking of dormancy. 16

2. Write on :

- (a) Functional aspect of Root apical meristem. 5
- (b) Role of different cambial cells in secondary growth. 5
- (c) Laticifers and its role. 6

OR

- (d) Organization of Shoot Apical Meristem (SAM). 5
- (e) Ontological evidences of evolution of xylem. 5
- (f) Cortical cambium. 6

3. Write on :

- (g) APETALA and AGAMOUS. 5
- (h) Molecular basis of male sterility. 5
- (i) Bisporic embryo sac development. 6

OR

- (j) XO method of sex determination. 5
- (k) Pollen embryo. 5
- (l) Megasporogenesis. 6

4. Write on :

- (m) Flower vectors. 5
- (n) Role of breeding system in gene pool transfer. 5
- (o) Types of endosperm. 6

OR

- (p) Pollination rewards. 5
- (q) Pollen pistil interaction. 5
- (r) Physiology of fruit maturation. 6

5. Elaborate on biochemical aspects of senescence. 16

OR

Give detail account on polyembryony in relation to in-vitro plant regeneration. 16

