

AU-229

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. Write on :
 - (a) Cytodifferentiation 5
 - (b) Structure of seed 5
 - (c) Mechanical methods for breaking of seed dormancy. 6
- OR**
- (d) Importance of seed dormancy 5
 - (e) Biosynthesis of nucleic acids 5
 - (f) Mobilization of reserve food. 6
2. Give an elaborated account on contribution of different tissues in plant development. 16
- OR**
- Discuss in detail on differentiation and development of leaf. 16
3. Elaborate on molecular mechanism and master gene regulation in flower development. 16
- OR**
- Discuss in detail on types of embryosac and its significance in plant reproduction. 16
4. Write on :
 - (g) Cross pollination 5
 - (h) Sporophytic self incompatibility 5
 - (i) Physiology of fruit setting 6

OR

- (j) Role of exudate in pollen germination 5
- (k) Importance and significance of double fertilization 5
- (l) Flower structure in relation to pollination. 6

5. Write on :

- (m) Apomixis 5
- (n) Regulation of senescence 5
- (o) Anther culture. 6

OR

- (p) Media preparation in Pollen culture 5
- (q) Factors influencing Senescence 5
- (r) Polycmbryony. 6