

**B.Sc. (Part—I) Semester—II Examination**

**BOTANY**

**(Gymnosperm, Morphology of Angiosperms and Utilization of Plants)**

Time : Three Hours]

[Maximum Marks : 80

**Note :—** (1) There are **seven** questions in all.

(2) Question No.1 is compulsory and carries **8** marks.

(3) Question Nos. 2—7 carry equal marks.

(4) Draw neat and well labelled diagrams wherever necessary.

1. (A) Fill in the blanks :

(i) The modification of stem in Ginger is \_\_\_\_\_ . ½

(ii) The root of *Lyginopteris oldhamia* is called \_\_\_\_\_ . ½

(iii) Cruciform corolla is characteristic feature of family \_\_\_\_\_ . ½

(iv) The arrangement of flowers on the peduncle is called as \_\_\_\_\_ . ½

(B) Choose the correct alternatives [MCQs] :

(v) Cyathium inflorescence is found in \_\_\_\_\_ : ½

(a) Ocimum (b) Euphobia

(c) Datura (d) Tridax

(vi) The botanical name of Shatavari is : ½

(a) *Aloe Vera* (b) *Ocimum sanctum*

(c) *Asparagus racemosus* (d) *Rauwolfia serpentina*

(vii) In Radish taproot is modified into : ½

(a) Conical root (b) Napiform root

(c) Prop root (d) Fusiform root

(viii) Morphological type of fruit in cotton is : ½

(a) Capsule (b) Drupe

(c) Pepo (d) Berry

(C) Answer in **one** sentence :

(ix) Define Phyllotaxy. 1

(x) What is flower ? 1

(xi) What are fossils ? 1

(xii) What is the function of Pneumatophore ? 1

2. Comment on :
- (a) Impression. 4
  - (b) Geological time scale (only table). 4
  - (c) Anatomy of stem in Bennettites. 4
- OR**
- (d) Compression. 4
  - (e) T.S. of stem of *Lyginopteris oldhamia*. 4
  - (f) Process of fossilization. 4
3. Describe the male cone and male gametophyte in *Pinus*. 12
- OR**
- (g) Describe L.S. of ovule in *Gnetum*. 6
  - (h) Affinities of Gymnosperms with Angiosperms. 6
4. Comment on :
- (i) Napiform root. 4
  - (j) Corm. 4
  - (k) Bilinnate compound leaf. 4
- OR**
- (l) Phylloclade. 4
  - (m) Parallel venation. 4
  - (n) Annuals and Perennials. 4
5. Comment on :
- (o) Capitulum inflorescence. 4
  - (p) Entomophily. 4
  - (q) Marginal Placentation. 4
- OR**
- (r) Papilionaceous corolla. 4
  - (s) Verticillaster inflorescence. 4
  - (t) Adhesion of Stamens. 4

6. What is simple fruit ? Describe morphological types of simple fleshy fruits (any **four**). 12

**OR**

(u) Describe varieties and economic importance of Potato. 6

(v) Describe varieties and economic importance of Cotton. 6

7. Comment on :

(w) Economic importance of Black Pepper. 4

(x) Sources of Bamboos. 4

(y) Medicinal uses of *Azadirachta indica*. 4

**OR**

(z) Economic importance of Cardamom. 4

(a) Medicinal uses of *Withania somnifera*. 4

(b) Economic importance of Eucalyptus. 4

