

OR

- (a) Cyathium and Verticillaster inflorescence. 6
 (b) Cross pollination. 6
6. Comment on :
- (a) Economic importance of Cotton. 4
 (b) Morphology of Potato. 4
 (c) Syconus. 4

OR

- (p) Varieties of Cotton. 4
 (q) Morphology of Groundnut. 4
 (r) Legume. 4

7. Comment on :

- (a) Sources of Timbers. 4
 (b) Economic importance of Black pepper. 4
 (c) Medicinal Uses of *Azadirachta indica*. 4

OR

- (p) Medicinal Uses of *Vitex negundo*. 4
 (q) Sources of fire wood. 4
 (r) Medicinal Uses of *Ocimum sanctum*. 4

AR - 516

Second Semester B. Sc. (Part - I) Examination

BOTANY

(Gymnosperms, Morphology of Angiosperms and Utilization of Plants)

P. Pages : 4

Time : Three Hours]

[Max. 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) Bennittites is also called as _____. $\frac{1}{2}$
 (ii) *Gnetum* belonging to family _____. $\frac{1}{2}$
 (iii) A plant which completes its life cycle within two years is called _____. $\frac{1}{2}$
 (iv) A root which arises from _____ is called as taproot. $\frac{1}{2}$

(B) Choose the correct alternative (MCQ) :

- (v) *Phylloclade* is modification of _____
 (a) Stem.
 (b) Root.

- (c) Petiole.
- (d) Leaf. $\frac{1}{2}$
- (vi) Modification of Stem in Ginger is _____
- (a) Bulb.
- (b) Tuber.
- (c) Corm.
- (d) Rhizome. $\frac{1}{2}$
- (vii) Foliaceous stipules are commonly found in _____
- (a) **Hibiscus rosa-sinensis.**
- (b) **Pisum sativum.**
- (c) **Rosa indica.**
- (d) **Polygonum glabrum.** $\frac{1}{2}$
- (viii) Kufri is the variety of _____
- (a) Wheat.
- (b) Potato.
- (c) Cotton.
- (d) Groundnut. $\frac{1}{2}$
- (C) Answer in one sentence :—
- (ix) Define Venation. 1
- (x) What is Phyllotaxy ? 1
- (xi) Define Syngeneecious Stamen. 1
- (xii) Define aestivation. 1

2. Comment on :
- (a) Impression. 4
- (b) Geological time scale (only table). 4
- (c) **Lyginopteris oldhamia.** 4

OR

- (p) Compression. 4
- (q) **Kaloxylon hookeri.** 4
- (r) T. S. stem of **Bennittites.** 4
3. Describe in detail Primary Structure and Secondary growth in **Pinus** stem.

OR

Describe the structure of ovule and development of female gametophyte in **Gnetum.** 12

4. Comment on :
- (a) Characteristics of stem. 4
- (b) Napiform root. 4
- (c) Corm. 4

OR

- (p) Bulb. 4
- (q) Adnate stipule. 4
- (r) Prop root. 4

5. What is placentation ? Describe different types of placentation with suitable examples. 12