

Total No. of Printed Pages—3

4 SEM TDC BOT M 1

2 0 1 3

(May)

BOTANY

(Major)

Course : 401

(Morphology and Taxonomy of Angiosperms)

Full Marks : 48

Pass Marks : 19

Time : 2 hours

*The figures in the margin indicate full marks
for the questions*

1. Choose the correct option :

1×5

(a) The book 'Genera Plantarum' was written by Bentham and Hooker/ Hutchinson/Engler and Prantle/ None of them.

(b) Head or capitulum inflorescence is found in the family Ranunculaceae/ Asteraceae/Cyperaceae/ Orchidaceae.

P13—1200/1205

(Turn Over)

(2)

- (c) In Fabaceae, the stamen type is Polyadelphous/Monadelphous/Diadelphous/All of these.
- (d) The theory of 'carpel polymorphism' was proposed by Saunders/Arber/Parkin/None of them.
- (e) Perianth lobes are reduced to lodicules in the family Orchidaceae/Musaceae/Poaceae/Cyperaceae.
2. Write short accounts on any four of the following : $2\frac{1}{2} \times 4$
- (a) Chemotaxonomy
- (b) Morphological nature of tendrils in Cucurbitaceae
- (c) Herbarium and its importance
- (d) Asteraceae as the highest evolved family of Dicotyledons
- (e) Binomial nomenclature and citation of author's name
- (f) Numerical Taxonomy
3. Write in detail with suitable examples on the role of morphology in classification of plants. 6+4

Or

Discuss the theories regarding the evolution of inflorescences of angiosperms with suitable diagrams. 6+4

P13-1200/1205

(Continued)

(3)

4. What is phylogenetic system? Discuss any one phylogenetic classification you have studied with its merits and demerits. 2+9

Or

Why are the phylogenetic systems of classification more acceptable than the natural systems? Discuss the system of classification proposed by Bentham and Hooker. 4+7

5. Give accounts on the diagnostic characters of any two of the following families. Also, write their respective floral formula and draw a labelled floral diagram : (3+1+2)×2

- (a) Magnoliaceae
- (b) Orchidaceae
- (c) Poaceae
- (d) Malvaceae

P13-1200/1205

4 SEM TDC BOT M 1