4 SEM TDC BOT M 1

2 0 1 8

(May)

BOTANY

(Major)

Course : 401

(Morphology and Taxonomy of Angiosperms)

Full Marks : 48

Pass Marks : 19/14

Time : 2 hours

The figures in the margin indicate full marks
for the questions

1. (a) Choose the correct answer / Fill in the blanks of the following : 1×5=5

   (i) The author of _Flora of British India_ is Kanjilal _et. al._ / N. L. Bor / Sir. J. D. Hooker / Linnaeus.

   (ii) When both the stamens and pistils of a flower fused to form a single structure called pollinium / gynostemium / stylopodium / pappus.

(_Turn Over_)

(iii) According to Englerian School of Phylogeny, the primitive angiospermic flowers were characteristically Pentamerous / Polymerous / Actinomorphic / Amentiferous.

(iv) Disc florets and ray florets are found in _____ inflorescence.

(v) *Carcuma longa* L. is a member of the family _____.

(b) Write short accounts on the following :

2×5=10

(i) Floral morphology of Lamiaceae

(ii) Affinities of Malvaceae

(iii) Preparation of herbarium

(iv) Importance of botanical garden in taxonomic studies

(v) Verticillaster inflorescence

2. Define a carpel. Write the morphological nature of carpel. Discuss the theory of carpel polymorphism proposed by Saunders.

1+2+7=1[

Or

Why angiosperms can be considered as highest evolved plants? Discuss the theories regarding the nature of probable ancestors of angiosperms. Why none of these theories cannot be accepted universally? 2+7+1=10

3. By mentioning its merits and demerits, discuss any phylogenetic system of plant classification you have studied. 2+2+7=11

Or

Write notes on the following : 6+5=11

(a) Linnaeus system of plant classification

(b) Application of chemistry in plant taxonomy

4. Write the floral characteristics, floral formulae and floral diagrams of the following families (any *three*) : (2+1+1)×3=12

(a) Cyperaceae

(b) Apiaceae

(c) Orchidaceae

(d) Rubiaceae

(e) Apocynaceae

★ ★ ★