

Total No. of Printed Pages—3

4 SEM TDC BOT M 1

2020

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 of the following : 1×3=3

(i) Natural system of classification of plants differs from artificial system of classification in

1. taking into account only one floral character
2. taking into account only one vegetative character
3. taking into account all the similarities between plants
4. All of the above

(ii) Two plants *A* and *B* are different in correlated morphological characters. The two plants should be treated as

1. one taxonomic species
2. one biological species
3. two taxonomic species
4. two biological species

(iii) Gynoecium is syncarpous but ovary is unilocular in the family

1. Malvaceae
2. Asteraceae
3. Lamiaceae
4. Solanaceae

(b) Fill in the blanks of the following : $1 \times 2 = 2$

(i) The common character found in the androecium of Asteraceae and Solanaceae is _____.

(ii) India's largest and oldest botanical garden is _____.

2. Write short accounts of the following : $2 \times 5 = 10$

- (a) Importance of herbarium specimen
- (b) Verticillaster inflorescence
- (c) Advance characters of Orchidaceae
- (d) Taxonomic keys
- (e) Objectives of plant taxonomy

(3)

3. Citing suitable examples, discuss the theories of origin of angiosperms. $2\frac{1}{2}\times 4=10$

Or

Describe the morphological nature of carpel. Write a comprehensive note on the theory of carpel polymorphism. $3+7=10$

4. By mentioning its merits and demerits, give an outline of one phylogenetic system of plant classification you have studied. $2+2+7=11$

Or

Write short accounts of the following : $6+5=11$

- (a) Chemotaxonomy
- (b) Comparative account of floral morphology of Magnoliaceae and Asteraceae
5. Write the floral characteristics, floral formulae and floral diagrams of the following families (any *three*) : $(2+1+1)\times 3=12$
- (a) Malvaceae
- (b) Rubiaceae
- (c) Musaceae
- (d) Cucurbitaceae
- (e) Cyperaceae
