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4 SEM TDC BOTH (CBCS) C 10

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(June/July)

BOTANY

(Core)

Paper : C-10

(**Plant Systematics**)

Full Marks : 53

Pass Marks : 21

Time : 3 hours

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

1. (a) Choose the correct answer from the following alternatives : 1×3=3

(i) The author of *Flora of British India* is Carolus Linnaeus/Sir J. D. Hooker/Kanjilal et al.

(ii) The inflorescence of Marigold is corymb/umbel/capitulum.

(iii) The unbranch, erect, cylindrical stout stem is known as aerial stem/culm/caudex.

(2)

- (b) Fill in the blanks : $1 \times 2 = 2$
- (i) The term 'taxon' was first used by _____.
- (ii) When anthers as well as filaments of stamens are united, it is called _____.
- (c) Write short notes on the following (any five) : $2 \times 5 = 10$
- (i) Verticillaster inflorescence
- (ii) Syngensis
- (iii) Monotypic genus
- (iv) Biological species
- (v) Monograph
- (vi) ICN

2. Write notes on the following (any three) : $4 \times 3 = 12$

- (a) Palynology
- (b) Virtual herbarium
- (c) Functions of botanical garden
- (d) Typification
- (e) Single-access key

3. What is cytotaxonomy? Discuss, how cytological data helps in plant taxonomy. $2 + 6 = 8$

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(Continued)

(3)

Or

Write morphological characters and economic importances of the following families : $4 \times 2 = 8$

- (a) Lamiaceae
- (b) Orchidaceae

4. By mentioning its merits and demerits, discuss Bentham and Hooker's system of classification. $4 + 6 = 10$

Or

Write notes on the following : $5 \times 2 = 10$

- (a) Merits and demerits of Engler and Prantl's system of classification
- (b) APG III system of classification

5. Why can angiosperms be considered as highest evolved plants? Discuss the Gnetales-Angiosperms theory of evolution of angiosperms. $2 + 6 = 8$

Or

Write short notes on the following : $4 \times 2 = 8$

- (a) Numerical taxonomy
- (b) E-flora

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