

2018

BOTANY

BOT: 201

PLANT TAXONOMY AND ECONOMIC BOTANY

Total marks: 80

Time: 3 Hours

The figures in the margin indicates full marks for the questions :

Q1). Choose the correct answer of the following Multiple Choice Questions

(Any six)

1×6=6

- (i) The chief merit of the Bentham and Hooker's system of classification is:
- (a) Ranales have been given a primitive position in this system
 - (b) Rubiales and Asterales place under Polypetalae
 - (c) The position of series Apocarpae is satisfactory
 - (d) The family Orchidaceae, have been considered advance
- (ii) The classical literature 'Vrishayurveda' was written by:
- (a) Susruta
 - (b) Parasara
 - (c) Charaka
 - (d) Pliny
- (iii) Which one of the following sequences shows the correct hierarchy of classification?
- (a) Kingdom, Domain, Phylum, Order, Class, Family, Genus, Species
 - (b) Domain, Kingdom, Phylum, Class, Order, Family, Genus, Species
 - (c) Genus, Species, Kingdom, Phylum, Order, Class, Family
 - (d) Domain, Phylum, Kingdom, Genus, Species, Family, Order, Class.
- (iv) Match **List-I (Books)** with **List-II (Authors)** and select the correct answer using the codes given below the list:

List-I	List-II
A. An Introduction of Botany	1. Hutchinson
B. Families of Flowering Plants	2. Bauhin
C. Die Evolution der Angiosperm	3. Theophrastus
D. De Historia Plantarum	4. Takhtajan

Codes:

	A	B	C	D
(a)	2	1	4	3
(b)	1	2	4	3
(c)	2	4	1	3
(d)	2	4	3	1

(v) Hemp fibres belong to :

- (a) *Corchorus capsularis* (b) *Acacia leucophloea*
(c) *Cannabis sativus* (d) *Hibiscus sabdariffa*

(vi) Millets belong to

- (a) Fabaceae (b) Poaceae
(c) Liliaceae (d) Asteraceae

(vii) Which one of the following NOT treated as an infraspecific taxa

- (a) Species
(b) Subspecies
(c) Variety
(d) Subvariety

Q2). Answer the very short type Questions (1×3=3)

- a. Who wrote 'De Materia Medica'?
b. *Rauwolfia serpentina* belong to the family _____.
c. Write the botanical source of Clove oil.

Q3). Answer the following questions (any Six) (2 × 6 =12)

- a. What do you mean by Ordines anomali?

- b. What is 'Nomen superfluum (nom. Superfl.)'? Give one example.
c. What is Homonyms? Give one example.
d. Differentiate between monophyly and polyphyly.
e. Write the botanical name of *Arjun* and *Sissoo*.
f. Define 'Nomina conservenda'. Mention its significance.
g. Differentiate between Ranunculaceae and Magnoliaceae.

Q4). Write a short note on any Four of the following (5 × 4 = 20)

- a. Principles of Priority and limitations
b. Rubber yielding plants of Assam
c. Rejections of scientific names.
d. Botanical Gardens of India
e. Vavilov's centre of origin
f. Economically important crops of Poaceae

Q5). Answer the following questions (any Three) (3 × 9 = 27)

- a. What is ICN? Briefly discuss the major changes in Melbourne Code, 2011. (1+8=9)
b. Describes the different steps involved in a preparation of a Herbarium. Discuss the importance of Herbaria in botanical research. (5+4=9)
c. Write the salient features of family Ranunculaceae. Mention few economically importance plants and uses from Ranunculaceae. (5+4=9)
d. Write the botanical name, family, useful parts/uses of the following
i. Agar u ii. Coffee iii. Tea (9)

Q6). Answer the following questions (any One) (1×12=12)

- a. Describe any system of classification of flowering plant. Mention its merits and demerits. (6+6=12)
b. What is Pre Darwinian System? Give an account on the Historical development of plant taxonomy in India. (2+10=12)
c. Give a details account on role of gross morphology and anatomy in solving taxonomic problems. (6+6=12)

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