

2016

**BOTANY**

BOT 401

**ANGIOSPERM TAXONOMY – I**

Full Marks : 80

Time : 3 Hrs

Figures in the right hand margin indicate full marks for the question

1. Answer the following Multiple Choice Questions: 1×6=6

- (i) Which one is a best method for understanding of general relationships of plants?  
 (a) Numerical Taxonomy (b) Chemtaxonomy  
 (c) Cytotaxonomy (d) Experimental Taxonomy
- (ii) 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. Historia Naturalis	1. Dioscorides
B. De Historia Plantarum	2. Pliny
C. De Materia Medica	3. Jhon Ray
D. Historia Plantarum	4. Theophrastus

Codes:

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

- (iii) The natural system of classification of plants differ from artificial system of classification in respects of:
- Taking into account only one vegetative characters
  - Taking into account only one floral characters
  - Taking into account all the similarities between plants
  - All of these
- (iv) The chief demerits of the Engler and Prantl's system of classification is:
- Monocots have been considered to be more primitive than dicots
  - Gymnosperms have been treated separately
  - Orchidaceae and Compositae, as treated as advanced families
  - It is also considered as phylogenetic system of classification
- (v) Which one of the following statement is Not correct in respect of APG classification?
- The Linnean system of orders and families should be retained.
  - Kew herbaria, maintained collections accordance with APG
  - Several major families are re-structured
  - New orders are not proposed
- (vi) Systematics deals with
- Classification of Organism
  - Identification of Organism
  - Identification, naming and classification of both plants and animals
  - The kind of diversity of all organisms and the existing relationship among them

2. Answer the very short type Questions (any three)  $1 \times 3 = 3$
- What is BioCode?
  - Who wrote 'Origin of Species'?
  - Who introduced the term species?
  - The classical taxonomy is also known as \_\_\_\_\_.
3. Distinguish between (any three)  $4 \times 3 = 12$
- Alpha and Omega Taxonomy.....
  - Flora and Manual
  - Flora and Vegetation
  - Monophyly and Polyphyly
4. Write a short note on any Four of the following  $5 \times 4 = 20$
- Biological species concept
  - Infra specific taxa
  - Superfluous names
  - Taxonomic journals
  - Phenetics
5. Answer the following questions (any Three)  $3 \times 9 = 27$
- What is type method? Explain in details various term associated with its application.  $2 + 7 = 9$
  - What is meant by 'Rejection of names'? Explain the conditions under which a name is to be rejected?  $2 + 7 = 9$
  - Write a brief account on Historical development of plant taxonomy. 9
  - Write briefly about the history and principles of ICBN 9

6. Answer the following very long type question (any One) 12
- a. What is Phylogenetic system of classification? How it differ from natural system of classifications? Discuss any one phylogenetic system of classification. 2+5+5=12
- b. Give an outline of Bentham and Hooker's system of classification. Discuss the various merits and demerits of this classification. 6+6=12

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