

2015

M.Sc.

2nd Semester Examination

BOTANY

PAPER—BOT-201

Full Marks : 40

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer all questions.

1. Answer any ten of the following : 1×10

- (a) Define 'α' and 'ω' taxonomy. Give an example.
- (b) What are Macromolecules and Micromolecules. Give an example from each.

(Turn Over)

- (c) Define 'disjunction'. Give an example.
- (d) "Evolution and classification of Flowering plants" - Who wrote this book and mention the year of 1st publication.
- (e) Define 'basal angiosperms'. Give an example.
- (f) What is the full form of APG? Who first introduced the classification?
- (g) Define heterobathmy.
- (h) Define 'convergent evolution'. Give an example.
- (i) Define cladogram.
- (j) Define 'Pollinia'. Name two families one from Dicots and other from Monocots having pollinia.
- (k) What is basionym? Give an example.
- (l) What is ethro - conservation?
- (m) What is 'phylocode'? Give an example.
- (n) Define nomenclatural type.

2. Write notes on any *two* of the following : 2×5

- (a) Short notes on *Archeofructus*.
- (b) Role of taxonomy in Biodiversity study.
- (c) SEM and QTEM - Role in taxonomy.
- (d) Concept of Paleo-herb.
- (e) Evolutionary status of Asteridae.

3. Answer any *two* of the following : 2×10

- (a) What is integrated system of classification? What are the basic differences between integrated and phylogenetic system of classification? Who first introduced the integrated system of classification. Mention the outline of any of the integrated system of classification with their merits and demerits.

1+2+1+4+1+1

- (b) Characterize the subclass 'Caryophyllidae'. Mention the putative evolutionary relationships among the orders of this subclasses. Define centrospermae.

3+5+2

- (c) What is biosystematics? What are the main purpose of this study. Mention the different categories of biosystematics studies with example. What is its significance in Taxonomic studies?

2+2+3+3

- (d) Define the phase of Taxonomy. How many phases in Taxonomy? Who first introduced this term? Mention the different phases in details.

2+2+1+5