

**2016**

**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 : 10×1**

- (a) Define systematics.
- (b) What is 'taxon'? Give an example.
- (c) What is phyletic polarity?

*(Turn Over)*

- (d) Flowering plants : Origin & Dispersal— Name the writer of this book and mention the year of its first publication.
  - (e) Mention the differences between anthocyanin and betalins. Give an example to each.
  - (f) Define 'Paleoherb' cite example.
  - (g) Write the full form of ANITA.
  - (h) What are sementides ? Give an example.
  - (i) What does it mean by  $NA = n \sin \theta$  ?
  - (j) Define hotspot. Cite an example.
  - (k) What is the basic difference between ICN & ICBN ?
  - (l) Mention the importance of *Archifractus*.
  - (m) Define nomenclatural type.
  - (n) What are Intraspecific toxa ?
  - (o) Define rules of priority.
2. Write notes on any *two* of the following : 2×5
- (a) Role of Palynology in Taxonomic study.

- (b) Evolutionary status of Caryophyllidae.
- (c) Value of biodiversity.
- (d) Advance Characters of Liliidae.

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

(a) What is phylogenetic system of classification? Who first proposed the phylogenetic system of classification? Mention the outline of any such system of classification upto subclass and mention its merits and demerits. 2+1+5+1+1

(b) Define chemotaxonomy. Mention at least, two examples of such study. Write the full form of rbcL? 2+3+4+1

(c) Characterize the subclass 'Rosidae'; Mention the putative evolutionary relationships among the orders of this subclass. Why 'Rosidae' is considered as larger group than highly evolved subclass 'Asteridae' as presented in the 'ballon size'. • 3+5+2

(d) Define ethnobotany. Describe the different branches of ethnobotany. Mention the ethnobotanical study in human welfare. 1+4+5