# 2010

## M.Sc.

## 2nd Semester Examination

### BOTANY

### PAPER—VII

*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) What is *ecospecies*? Give an example.

(b) Define *subspecies*. Give an example.

(c) What are the full form of *CIMAP* and *CCRAS*?

(d) Define *ethno-botany*.

(e) What is *omega* taxonomy? Give an example.

(f) "*An integrated system of classification of flowering plants*" Who wrote this book?

(g) What is biodiversity hotspot?

(h) What does the acronym CAL stand for?

(i) Explain $NA = n \, Sin \, \theta$.

(j) Who first discover *SEM* and *TEM*, in which year?

(k) Define *iso-zymes* and *allo-zymes*.

(l) Define *phylocode*.

(m) What is basionym?

(n) Define *massula* and give an example.

(o) Define resolving power.

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

(a) Salient features of *Caryophyllidae* and its evolutionary significance.

(b) Effective and valid publications.

(c) *NPC* system.

(d) *Taxonomic hierarchy*.

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

(a) What is *integrated system* of classification? Who are the proponents of *integrated system of classification*? Mention in details with *merits* and *demerits* of any one of integrated systems of classification which you have studied. 1+1+8

(b) Define *chemical systematics*. What are the purposes of study of *chemical systematic*? What are the *chemical characters* used in chemosystematic studies? Mention in details of two primary constituents which are frequently used for *taxonomic problems* (upto species level). 1+1+2+4+2

(c) What is *biosystematics*? Who first proposed this term? What are the *steps* and *categories* followed in the bio-systematic investigations? Mention in details of the objectives of biosystematics study. 1+1+4(2+2)+4

(d) Characterise Alismataceae. Highlight the evolutionary significance of the taxon. Mention two species of this family from West Bengal. 4+4+2

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