

**M.Sc. 2nd Semester Examination, 2011**

**BOTANY**

PAPER—BOT-201

*Full Marks : 40*

*Time : 2 hours*

**Answer all questions**

*The figures in the right-hand margin indicate marks*

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

*Illustrate the answers wherever necessary*

1. Answer any *ten* of the following : 1 × 10
- (a) Define systematics.
  - (b) Explain “Eudicot” and cite an example.
  - (c) Name a most primitive flowering plant.
  - (d) Mention probable time of the origin of angiosperms.

( Turn Over )

- (e) What is eurolynous taxa ? Give an example.
  - (f) State the basic difference between a dendogram and a cladogram ?
  - (g) Define comparium.
  - (h) What is “*nomen nudum*” of ICBN ? Explain it.
  - (i) Define phytochorion. Give an example.
  - (j) Explain ex-situ conservation.
  - (k) Define biodiversity “hot spot” ?
  - (l) What is “Rule of Priority” in ICBN?
  - (m) Define paratype.
  - (n) Who is the father of ethnobotany in India ?
  - (o) Write the full forms of SEM and TEM ?
2. Write short notes on any *two* of the following : 5 × 2
- (i) Salient features of Rosidae and its putative relationships

- (ii) Steps and categories of biosystematic study
- (iii) Circumscription of “Basal angiosperms” of the Angiosperm Phylogenetic Group (APG)
- (iv) Role of Botanic Garden and Gene Bank in conservation.

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

(a) What is true phylogenetic system of classification ? What are the basic differences between an integrated system and the APG system of classifications ? Who first proposed the APG system of classification ? Schematically represent the APG-I system of classification. 1 + 2 + 1 + 6

(b) Define biodiversity. Who first proposed this term ? Mention its importance. Name the megadiversity centres of the world and mention the importance in the light of biodiversity conservation ? 1 + 1 + 2 + 3 + 3

- (c) (i) Define taxonomic hierarchy. Comment on major and minor categories. 1 + 4
- (ii) Discuss on the range of floral characters in Lilia'es. 5
- (d) Characterize Magnolüdae. Mention putative relationships and evolutionary significance with in the orders of this subclass. Name two important medicinal plants from West Bengal which belong to this subclass. 4 + 4 + 2
-