

**FINAL YEAR B.Sc. DEGREE EXAMINATION, MARCH/APRIL 2005****Part III—Group IV—Botany****Paper IV—MORPHOLOGY, TAXONOMY OF ANGIOSPERMS, PHARMACOGNOSY,  
ECONOMIC BOTANY AND ETHNO BOTANY**

Time : Three Hours

Maximum : 60 Marks

*Draw diagrams wherever necessary.***I. Answer any one of the following :**

- 1 Describe with diagrams the various types of fruits in plants.
- 2 Give a comparative account of the different subfamilies of Leguminosae. Mention the botanical names of any *two* economically important plants of this family.
- 3 "Hutchinson's system of plant classification is a phylogenetic system." Explain with details.

(1 × 12 = 12 marks)

**II. Answer any one of the following :-**

- 4 What is a herbarium ? Mention the significance of herbaria in taxonomical studies.
- 5 Describe with diagrams the different types of placentation. Give examples.
- 6 Flower is a modified shoot. Substantiate with evidences.

(1 × 6 = 6 marks)

**III. Answer any one of the following :-**

- 7 Write the botanical name and morphology of the useful parts of the following :-
  - (a) Cloves.
  - (b) Ginger.
  - (c) Cardamom.
  - (d) Pepper.
- 8 What are beverages ? Give the botanical names and morphology of any *two* beverage yielding plants.
- 9 Give an account of any *four* medicinal plants mentioning their botanical name and family.

(1 × 6 = 6 marks)

**IV. Answer any three of the following :-**

- 10 Define ethnobotany. What are the various methods of collection of ethnobotanical data ?
- 11 What is the role of chemotaxonomy in solving the taxonomic problems ?
- 12 Illustrate imbricate aestivation.
- 13 Explain the characteristic features of cyathium inflorescence.
- 14 What are the main principles of ICBN ?

(3 × 4 = 12 marks)

**Turn over**

V. Answer any *seven* of the following :

- 15 Distinguish between Apocynaceae and Asdepiadaceae.
- 16 Write an account of the origin of Angiosperms.
- 17 Describe with diagrams the gynostemium of orchidaceae.
- 18 Write the mode of dispersal of fruits in Asteraceae.
- 19 What is synandrous condition ? How does it differ from syngenesious condition ?
- 20 Describe with diagram the structure of spikelet.
- 21 Define pharmacognosy. What is its importance ?
- 22 What are the advanced characters of the family Apiaceae ?
- 23 What is a fossil ? Give an example of a fossil angiosperm.
- 24 What is botanical garden ? Name any *two* botanical gardens in India.

(7 × 2 = 14 marks)

VI. Answer any *ten* of the following :-

- 25 Write the botanical name of Ragi.
- 26 Name the fruit of Apiaceae.
- 27 Who is the father of systematic botany ?
- 28 What is cypsela ?
- 29 Name the source of asafoetida.
- 30 Give an example for artificial system of plant classification.
- 31 Which is the source plant of canada balsam ?
- 32 Write the binomial of Walnut.
- 33 Name a plant with hooded another.
- 34 What are ray florets ?
- 35 Define palynology.
- 36 What is resupination ?
- 37 Name the binomial of the source plant of 'Quinine'.
- 38 Define multiple fruit with an example.

(10 × 1 = 10 marks)