



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – PLANT BIOLOGY & PLANT BIO-TECH.

THIRD SEMESTER – NOVEMBER 2011

**PB 3506/PB 3502 - ANGIOSPERM, TAXONOMY, ECO.BOTANY
& EMBRYOLOGY**

Date : 01-11-2011
Time : 9:00 - 12:00

Dept. No.

Max. : 100 Marks

PART – A (20 marks)

Answer ALL Questions

I. CHOOSE THE CORRECT ANSWER.

(5 x 1 = 5)

- Engler and Prantl published their classification in
a) 23 vols b) 21 vols c) 13 vols d) 7 vols.
- Dendrosicyos* belongs to the family
a) Anacardiaceae b) Solanaceae c) Cucurbitaceae d) None of them
- Geranium oil is obtained from
a) Pelargonium b) Geranium c) Michelia d) Dirachma
- The nutritive layer in anther is
a) Tapetum b) Endothecium c) Middle layer d) Archesporium.
- The occurrence of more than one embryo in the seed is
a) Polyembryony b) Parthenocarpy c) Adventive embryony d) Apospory.

II. STATE WHETHER THE FOLLOWING STATEMENTS ARE TRUE OR FALSE:

(5 X 1 =5)

- Bentham and Hooker's system of classification is an artificial system.
- One of inner whorl of perianth is modified into labellum in Orchidaceae.
- Eleusine coracana* is also called as Finger millet.
- The pollen sac is otherwise called as microsporangia.
- The polar nuclei is also known as endosperm mother cell.

III. COMPLETE THE FOLLOWING

(5 X 1 = 5)

- The basic unit in numerical taxonomy is
- The Characteristic feature of capparidaceae is the presence of
- Spice obtained from the family Lauraceae is
- The nuclear division during gametogenesis is
- Double fertilisation was discovered by

IV. ANSWER THE FOLLOWING, EACH WITHIN 50 words only

(5 X 1 = 5)

- Define author citation.
- Describe Synandrium.
- Give the binomial for Sweet flag and Clove.
- Define Pollination. Distinguish the types.
- Define Aril. Give suitable example.

PART – B

ANSWER THE FOLLOWING, EACH ANSWER WITHIN 500 WORDS.

DRAW DIAGRAMS WHEREVER NECESSARY.

(5 X 7 = 35 marks)

21. a) Discuss the role of phytochemicals in taxonomy.

OR

b) Describe the importance of keys in identification of plants.

22. a) Explain the salient features of Solanaceae and add a note on adnation and the economic importance of the family.

OR

b) Enumerate the salient features of Cucurbitaceae and describe the morphology of tendrils.

23. a) Give the scientific name, family, parts used and uses of any 3 essential oils.

OR

b) Give the scientific name, family, parts used and uses of any 3 pulses.

24. a) Explain the structure of a mature anther.

OR

b) Describe the structure of a mature ovule.

25. a) Explain Apomixis.

OR

b) Explain the development of nuclear and helobial endosperm.

PART – C

ANSWER ANY THREE OF THE FOLLOWING, EACH WITH 1200 WORD.

DRAW DIAGRAMS WHEREVER NECESSARY.

(3 X 15 = 45 marks)

26. Give the outline of Bentham and Hooker's classification with its merits and demerits.

27. Describe the diagnostic features of Euphorbiaceae. Add a note on its floral variations and list any 5 economically important plants.

28. Give the binomial, family, morphology of the useful part and uses of any 2 each of the timber and fibre yielding plants.

29. Define tapetum. Describe the types and function of tapetum.

30. Explain the structure and development of dicot embryo.

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