

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086
(For candidates admitted during the academic year 2011 - 12)

SUBJECT CODE: 11 BT/MC/TE34

B. Sc. DEGREE EXAMINATION, NOVEMBER 2012
BRANCH V (a) – PLANT BIOLOGY AND PLANT BIOTECHNOLOGY
THIRD SEMESTER

COURSE : MAJOR – CORE
PAPER : TAXONOMY OF ANGIOSPERMS & ECONOMIC BOTANY
TIME : 3 HOURS MAX. MARKS: 100

SECTION – A

ANSWER ALL QUESTIONS (18 marks)

I. CHOOSE THE CORRECT ANSWER:

1. *Ocimum* belongs to the family
a) Lamiaceae b) Annonaceae c) Apocynaceae d) Arecaceae
2. The term Phyllotaxy is used to describe
a) Type of ovary b) Mode of arrangement of leaves in a stem
c) Type of root d) Arrangement of sepals
3. Tendril climber is a characteristic feature of
a) Annonaceae b) Acanthaceae c) Cucurbitaceae d) Lamiaceae
4. *Cannabis sativa* is commonly known as
a) Hemp b) Poppy c) Cumin d) Pepper
5. Betel leaf is a
a) Spice b) Resin c) Tannin d) Masticatories

II. FILL IN THE BLANKS:

6. *Ixora* belongs to the family _____.
7. Stamens attached to the petals are referred _____.
8. When Petals or sepals lie close to each other without overlapping, the aestivation is known as _____.
9. The fruit of Nymphaeaceae is _____.
10. Jute is the common name for _____.

III. SAY WHETHER TRUE OR FALSE.

11. Isotype is the duplication of holotype.
12. Vasculum is a type of inflorescence.
13. Amaranthaceae belongs to Polypetalae.
14. *Asafoetida* is a gum resin.

II. MATCH THE FOLLOWING:

- | | |
|---------------------------|-------------------------------------|
| 15. Linnaeus | Arecaceae |
| 16. Gamopetalous | Artificial system of classification |
| 17. <i>Cocos nucifera</i> | Spice |
| 18. <i>Eugenia</i> | Petals fused |

IV. ANSWER ANY SIX QUESTIONS IN 50 WORDS EACH: (6X3=18)

19. ICBN
20. Use of dichotomous keys.
21. Botanical gardens.
22. Holotype
23. Tendrils in cucurbitaceae.
24. Three key characters of Annonaceae.
25. Three economically important plants of Solanaceae.
26. Spikelet of Poaceae.
27. Fumitories

SECTION – B**ANSWER ANY FOUR QUESTIONS IN 200 WORDS EACH. DRAW DIAGRAMS WHEREVER NECESSARY: (4X6=24)**

28. State the differences among the Artificial, Natural and Phylogenetic system of classification.
29. Write a brief note on Binomial system of Nomenclature.
30. Draw floral diagram of Cyathium in Euphorbiaceae and mention its floral formula.
31. What are the characteristic features of Orchidaceae?
32. Give the botanical name, family, morphology of the useful part and uses of Cotton.
33. Write short notes on gums and resins.

SECTION – C**ANSWER ANY TWO QUESTIONS IN 1000 WORDS EACH. DRAW DIAGRAMS WHEREVER NECESSARY: (2X20=40)**

34. Give a broad outline of Bentham and Hooker's system of classification. Add its merits and demerits.
35. Write in detail about Herbarium techniques.
36. Write an essay on the salient features and economic importance of Fabaceae.
37. Compare and contrast the floral structures of Rutaceae and Apocynaceae.
