

MAR IVANIOS COLLEGE (AUTONOMOUS) THIRUVANANTHAPURAM

Reg. No. :....

Name :....

Third Semester B.Sc. Degree Examination, November 2015 First Degree Programme under CBCSS Complementary Course: Botany – III (for Zoology) AUBO331.2e: Systematic Botany, Economic Botany, Ethno Botany and Plant Breeding

Time: 3 Hours

Max. Marks: 80

SECTION – A

Write short notes on ALL the following.

- 1. Adhesion.
- 2. Monochlamydy.
- 3. Colchicine.
- 4. Spathe.
- 5. Heterosis.
- 6. Adaptations.
- 7. Exotic variety.
- 8. Apocarpous condition.
- 9. Name the family with reniform anther.
- 10. Actinomorphy.

(10 × 1 = 10 Marks)

SECTION – B

Answer any **EIGHT** questions, not exceeding one paragraph.

- 11. Explain the types of flower based on position of ovary.
- 12. Distinguish between umbel and corymb.

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- 13. Describe distant hybridization.
- 14. What are floral diagram and floral formula ?
- 15. Differentiate racemose and cymose inflorescence.
- 16. Write a note on 'Arogyappacha'.
- 17. Describe head or capitulum.
- 18. What is clonal selection ?
- 19. Explain the spikelet.
- 20. Give a brief account of a special type of inflorescence studied by you.
- 21. What is vexillary aestivation ?
- 22. Mention the binomial and family of the following plants
 - i). Black gram ii). Sugar cane

$(8 \times 2 = 16 \text{ Marks})$

SECTION – C

Short essay type : Answer any SIX questions.

- 23. Mention the characteristic features of the family Verbenaceae.
- 24. What is herbarium ? Describe the stages involved in the preparation of a standard herbarium.
- 25. Add a note on quarantine and its procedure in India.
- 26. What are the main objectives of plant breeding ?
- 27. Explain the characteristic features of the family Rubiaceae.
- 28. Give the binomial, family and morphology of useful part of the followingi). Cardamom ii). Turmeric iii). Gingelly iv). Cotton
- 29. What is inflorescence ? Describe the various types of cymose inflorescence.
- 30. Write down the characteristic features of the family Annonaceae.
- 31. Describe placentation ? Explain any four types of placentation.

(6 × 4 = 24 Marks)

SECTION – D

Long essay type : Answer any **TWO** questions.

32. Mention the principles and outline of Bentham and Hooker's system of classification. Add a note on its merits and demerits.

- 33. Explain the vegetative and floral features of the family Apocynaceae. Give the binomial of any two economically important members of the family.
- 34. Describe the process of hybridization as a means of plant improvement.
- 35. What are the important features of Poaceae ? Justify its position as the last family of angiosperms.

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(2 \times 15 = 30 \text{ Marks})
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