

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

SUBJECT CODE: 11BT/AC/GB13

B. Sc. DEGREE EXAMINATION, NOVEMBER 2011
BRANCH VI (a) – ADVANCED ZOOLOGY AND BIOTECHNOLOGY
FIRST SEMESTER

COURSE : ALLIED – CORE
PAPER : GENERAL BOTANY-I
TIME : 3 HOURS
MAX.MARKS:100

SECTION – A (36 marks)
(18 x 1 = 18 marks)

(I) CHOOSE THE CORRECT ANSWER: (5 X 1 = 5 MARKS)

1. Verticillaster inflorescence is the characteristic feature of
a) Lamiaceae b) Annonaceae c) Apocynaceae d) Arecaceae
2. When petals are free, the corolla is called as
a) Gamopetalous b) Polypetalous c) Gamosepalous d) Polysepalous
3. The vegetative reproduction in *Chara* takes place by
a) Bulbils b) Amylum stars c) Secondary protonema d) All the above
4. Air bladder is present in
a) *Nostoc* b) *Sargassum* c) *Chara* d) *Rhizopus*
5. All fungi are
a) Symbionts b) Parasites c) Heterotrophs d) Saprophytes

(II) FILL IN THE BLANKS: (5 X 1 = 5 MARKS)

6. *Cocos nucifera* belongs to the family _____.
7. In _____ stem the vascular bundles are collateral and open.
8. The antheridium in *Chara* is known as _____.
9. The fruiting body of *Aspergillus* is _____.
10. The causal organism of Tikka disease of groundnut is _____.

(III) STATE WHETHER THE FOLLOWING STATEMENTS ARE TRUE OR FALSE: (4 X 1 = 4 MARKS)

11. *Boerhaavia* shows medullary bundles.
12. The main axis of *Sargassum* is differentiated into nodes and internodes.
13. *Chara* is a red alga.
14. The sexual reproduction of *Rhizopus* is by Gametangial copulation.

(IV) MATCH THE FOLLOWING:**(4 X 1 = 4)**

- | | |
|----------------------|------------------------|
| 15. Amaranthaceae | Heterocyst |
| 16. <i>Nostoc</i> | Bracket fungi |
| 17. <i>Polyporus</i> | Non motile spores |
| 18. Aplanospores | Monochlamydeous flower |

(V) WRITE IN 30 WORDS. ANSWER ANY 6 OF THE FOLLOWING**(6 x 3 = 18)**

19. Give the key characters of Arecaceae.
20. Mention any 3 economic important plants of Lamiaceae.
21. Distinguish fascicular and interfascicular cambium.
22. Mention 3 salient features of algae.
23. What are Akinetes?
24. Explain the structure of nucule.
25. Define saprophytes.
26. Describe briefly the vegetative structure of *Rhizopus*.
27. Explain the internal structure of basidiocarp.

SECTION – B

ANSWER ANY FOUR QUESTIONS. EACH ANSWER NOT TO EXCEED 200 WORDS. DRAW DIAGRAMS WHEREVER NECESSARY.

(4 x 6 = 24)

28. Outline Bentham and Hooker's classification.
29. Give the salient features of Cucurbitaceae.
30. Write the economic importance of Apocynaceae.
31. Discuss secondary growth in dicot root.
32. Describe the structure of *Nostoc* thallus.
33. Describe the anomaly in the Stems of *Nyctanthus* & *Boerhaavia*.

SECTION – C

ANSWER ANY TWO QUESTIONS. EACH ANSWER NOT TO EXCEED 1000 WORDS. DRAW DIAGRAMS WHEREVER NECESSARY.

(2 x 20 = 40)

34. Enumerate the salient features of the family Annonaceae and mention the economic importance.
35. Explain reproduction in *Aspergillus*.
36. Trace the life cycle of *Sargassum*.
37. Write an essay on the causal organism, symptoms and control measures of Tikka disease of groundnut & Citrus Canker.
