

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086
(For candidates admitted during the academic year 2008-09 & thereafter)

SUBJECT CODE: BT/AC/GB13

B. Sc. DEGREE EXAMINATION, NOVEMBER 2010
BRANCH VI (a) – ADVANCED ZOOLOGY AND BIOTECHNOLOGY
FIRST SEMESTER

COURSE : ALLIED – CORE
PAPER : GENERAL BOTANY-I
TIME : 2 ½ HOURS
MAX.MARKS:100

SECTION – A

ANSWER ALL QUESTIONS (22 x 1 = 22)

I. FILL IN THE BLANKS (6 X 1 = 6)

1. Flowers with hooded anthers and apocarpous pistil are seen in -----.
2. The perfect stage of *Aspergillus* is -----.
3. Oyster mushroom is cultivated on a bed of -----.
4. ----- is a heterocystous blue green algal filament
5. Accessory cambium originates from ----- in *Boerhaavia*.
6. The male sex organ of chara is known as -----.

II MATCH THE FOLLOWING (5 X 1 = 5)

- | | |
|---------------------|------------------|
| 7. Apocynaceae | <i>Cocos</i> |
| 8. Lamiaceae | <i>Rhizopus</i> |
| 9. Arecaceae | <i>Pleurotus</i> |
| 10. Edible mushroom | <i>Ocimum</i> |
| 11. Bread mold | <i>Plumeria</i> |

III. ANSWER TRUE OR FALSE (6 X 1 = 6)

12. Medicinal herbs of Lamiaceae have volatile essential oils.
13. Flowers of Cucurbitaceae have bilabiate corolla.
14. Sexual reproduction in *Sargassum* is of the oogamous type
15. Spawn for mushroom cultivation is made with seeds of maize
16. Cortical bundles are seen in *Nyctanthus*.
17. Tepals are seen in Family Amaranthaceae.

IV. CHOOSE THE CORRECT ANSWER (5 x 1 = 5)

18. Heterotrophic mode of nutrition is seen in
[a] *Chara* [b] *Cladophora* [c] *Rhizopus* [d] *Nostoc*
19. Sexual reproduction is absent in
[a] *Chara* [b] *Nostoc* [c] *Polyporus* [d] *Sargassum*
20. Many plants of this family possess poisonous alkaloids
[a] Annonaceae [b] Apocynaceae [c] Lamiaceae [d] Cucurbitaceae

21. Anomalous secondary growth is commonly seen in
 [a] woody climbers [b] herbs [c] grasses [d] tendrils
22. According to Bentham and Hooker's classification, the three classes under phanerogams are - [a] Inferae, Heteromerae and Bicarpellatae
 [b] Polypetalae, Gamopetalae and Monochlamydeae
 [c] Dicotyledones, Monocotyledones and Monochlamydeae
 [d] Dicotyledones, Gymnosperms and Monocotyledones

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

23. Ascocarp
24. Verticillaster
25. Heartwood
26. Periderm
27. Cyanobacteria
28. Pepo
29. Conceptacle
30. Hymenium
31. Zygosporangium

SECTION – B

ANSWER ANY FOUR QUESTIONS. EACH ANSWER NOT TO EXCEED 300 WORDS. (4 x 10 = 40)

32. Enumerate the characteristic features of the monocotyledonous family you have studied.
33. Describe the thallus of *Sargassum*.
34. Explain anomalous secondary growth with one example.
35. Compare the characteristic features of algae and fungi.
36. Describe the basidiocarp of *Polyporus*.
37. Write notes on the different styles of Bonsai.

SECTION – C

ANSWER ANY ONE QUESTION. EACH ANSWER NOT TO EXCEED 1000 WORDS. (1 x 20 = 20)

38. Enlist the salient features of the 2 families you have studied under Polypetalae. Add a note on the economically important plants of both.
 (OR)
39. Explain in detail the cultivation of Oyster Mushroom.
