

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086  
(For candidates admitted from the academic year 2011 – 12 & thereafter)

SUBJECT CODE: 11BT/AC/GB23

B. Sc. DEGREE EXAMINATION, APRIL 2013  
BRANCH VI(A) – ADVANCED ZOOLOGY AND BIOTECHNOLOGY  
SECOND SEMESTER

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

SECTION – A

ANSWER ALL QUESTIONS

I. CHOOSE THE CORRECT ANSWER: (5 x 1 = 5)

- The end product of glycolysis is \_\_\_\_\_  
a) Citric acid      b) Pyruvic acid      c) Fumaric acid      d) Succinic acid
- Apical dominance is initiated by \_\_\_\_\_  
a) Auxins      b) Ethylene      c) Cytokinins      d) Gibberellins
- The vascular tissues are absent in \_\_\_\_\_  
a) Bryophyta      b) Pteridophyta      c) Gymnosperms      d) none of the above
- The best time to harvest cut flowers is during \_\_\_\_\_  
a) Early morning      b) Late morning      c) Night      d) Evening
- \_\_\_\_\_ is a fungal growth medium which serves as inoculum for mushroom cultivation  
a) Dextrose      b) Sach's solution      c) Spawn      d) MS medium

II. FILL IN THE BLANKS: (5 x 1 = 5)

- The light reaction takes place in \_\_\_\_\_ of the chloroplast.
- The Pteridophytes are generally referred to as \_\_\_\_\_.
- The middle cortical zone of coralloid root harbours \_\_\_\_\_ algae.
- The art of growing a tree or a plant in a shallow pot is known as \_\_\_\_\_.
- The property of a normal cell to give rise to a complete individual is called \_\_\_\_\_.

III. STATE WHETHER TRUE OR FALSE: (4 x 1 = 4)

- The decrease in the quantum yield in the red part of the spectrum is called red drop effect.
- The dominant phase in Bryophyta is sporophyte.
- The sorus is of mixed type in *Adiantum*.
- The botanical name of oyster mushroom is *Agaricus bisporus*.

IV. MATCH THE FOLLOWING (4 x 1 = 4)

- |                  |   |                           |
|------------------|---|---------------------------|
| 15. Mitochondria | - | tissue culture            |
| 16. Bulbil       | - | paddy straw               |
| 17. Callus       | - | oxidative phosphorylation |
| 18. Spawn        | - | Funaria                   |

**IV. ANSWER ANY SIX, EACH ANSWER SHOULD NOT EXCEED 50 WORDS  
(6 x 3 =18)**

19. ABA.
20. Anaerobic respiration.
21. Gemmae.
22. Coralloid root.
23. Maiden hair fern.
24. Totipotency.
25. Emerson Enhancement Effect.
26. Dry flower arrangement.
27. Spawn.

**SECTION – B**

**ANSWER ANY FOUR IN 200 WORDS. DRAW DIAGRAMS WHEREVER  
NECESSARY (4 x 6=24)**

28. Explain Hatch and slack cycle.
29. Give an account on Oxidative phosphorylation and Electron Transport Pathway.
30. Point out the salient features of Gymnospermae.
31. Describe the external morphology of sporophytes of *Adiantum*.
32. Explain the vegetative method of reproduction in *Funaria*.
33. Give an account on Bonsai technique.

**SECTION - C**

**ANSWER ANY TWO QUESTIONS IN 1000 WORDS. DRAW DIAGRAMS  
WHEREVER NECESSARY (2 x 20=40)**

34. Explain elaborately the process of Light reaction in Photosynthesis.
35. Define growth hormones. Give an account on the physiological role and practical applications of Auxins, Gibberellins and Cytokinins.
36. Describe in detail the life cycle of *Cycas*.
37. Write an essay on the method of cultivation of Oyster Mushroom.

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