

**STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086**  
(For candidates admitted from the academic year 2005-06 & thereafter)

**SUBJECT CODE: BT/AC/GB22**

**B. Sc. DEGREE EXAMINATION, APRIL 2008**  
**BRANCH VI(A) – ADVANCED ZOOLOGY AND BIOTECHNOLOGY**  
**SECOND SEMESTER**

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

**SECTION – A**

**ANSWER ALL QUESTIONS**

**I CHOOSE THE CORRECT ANSWER : (1 x 18 = 18)**

1. Glycolysis takes place in the  
a) Cytoplasm                      b) Mitochondrion                      c) Chloroplast
2. The plant body or thallus of bryophytes is called  
a) Prothallus                      b) Gametophyte                      c) Sporophyte
3. Adiantum is commonly called  
a) Moss                      b) Stone wort                      c) Maiden hair fern
4. Tikka disease is caused by a  
a) Virus                      b) Bacterium                      c) Fungus
5. Corolloid roots are seen in  
a) *Cycas*                      b) *Adiantum*                      c) *Funaria*

**II FILL IN THE BLANKS :**

6. The hormone involved in fruit ripening is \_\_\_\_\_.
7. The mass of undifferentiated tissue produced by the explant during plant tissue culture is called \_\_\_\_\_.
8. Naked seeds are the characteristic feature of \_\_\_\_\_.
9. In Bryophytes \_\_\_\_\_ is essential for fertilization.
10. Photolysis of water is responsible for the release of \_\_\_\_\_ during Photosynthesis.

**III STATE WHETHER TRUE OR FALSE:**

11. Abscissic acid is a growth inhibitor.
12. Dark reaction occurs in the grana of the Chloroplast.
13. Anaerobic respiration yields 8 ATP molecules.
14. Seta is seen in the sporophyte of *Funaria*.
15. True indusium is seen in *Adiantum*.

16. Apical dominance is caused by auxins.
17. Diploxylic condition is seen in *Cycas*.
18. Autoclave is used for sterilization of explants.

**IV ANSWER ANY SIX, EACH WITH 50 WORDS : ( 3 x 6 =18 )**

19. Short day plants.
20. Hardening.
21. Megasporophyll.
22. Anaerobic respiration.
23. Transfusion tissue.
24. Emasculation.
25. Operculum.
26. Cytokinin.
27. Pollen chamber.

**SECTION - B**

**V ANSWER ANY FOUR IN 200 WORDS EACH : ( 4 x 6 =24 )**

28. Give an account of the physiological effects of Auxins.
29. Draw a labelled diagram of capsule of *Funaria*.
30. Describe the internal structure of the leaflet of *Cycas*.
31. Explain the process of non-cyclic photophosphorylation.
32. Give an account of the causal organism, symptoms and control measures of Citrus Canker.
33. Describe the sporophyll of *Adiantum*.

**SECTION - C**

**VI ANSWER ANY TWO IN 1000 WORDS EACH: ( 2 x 20 =40 )**

34. Give an account of the Calvin Cycle.
35. Describe the male and female reproductive structures of *Cycas*.
36. Explain the steps in Aerobic Respiration.
37. Describe the techniques in plant Hybridisation.

\*\*\*\*\*