

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

SUBJECT CODE: BT/AC/GB23

B. Sc. DEGREE EXAMINATION, APRIL 2009
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 : (20 x 1 = 20)

- The site of Photosynthesis in the plant cell is
a) Mitochondrion b) Chloroplast c) Nucleus
- The female sex organ of bryophytes is called
a) Antheridium b) Carpogonium c) Archegonium
- Pseudo indusium is a characteristic feature of
a) *Funaria* b) *Adiantum* c) *Cycas*
- The hormone involved in fruit ripening is
a) Ethylene b) Auxin c) Kinetin
- Surface sterilization of explants in tissue culture is usually done using
a) PEG b) Abscissic acid c) Mercuric chloride

II FILL IN THE BLANKS:

- Light reaction takes place in the _____ of the Chloroplasts.
- The process of breaking seed dormancy by mechanical breaking of seed coats is called _____.
- The pollen chamber is present in the _____ of *Cycas*.
- The mass of undifferentiated tissue formed during plant tissue culture is called _____.
- Adiantum* is commonly called _____.
- Oxidative Phosphorylation takes place in the _____.
- The nutrient medium commonly used in tissue culture is _____.

III STATE WHETHER TRUE OR FALSE:

- Glycolysis takes place in the cytoplasm.
- Bolting is caused by auxin.
- Coralloid roots are negatively geotropic.
- The flowering hormone is called florigen.
- Tikka disease is caused by a virus.
- Sporophyte is diploid in Pteridophytes.
- The process of bagging is important in Hybridisation.
- Chlorophyll a is an accessory pigment in photosynthesis.

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

21. Hardening
22. Short day plants
23. Gibberellin
24. Pigment system I
25. Diploxylic condition
26. Operculum
27. Sorus
28. Photolysis
29. Pseudo-indusium

SECTION - B

V ANSWER ANY FOUR IN 200 WORDS EACH: (4 x 8 =32)

30. Give an account of Glycolysis.
31. Describe the male cone of *Cycas*.
32. List out the practical applications of auxins.
33. Explain the method of sterilization in tissue culture.
34. Describe the gametophyte of *Funaria*.
35. Explain the cause, symptoms and control measures of Citrus canker.

SECTION - C

VI ANSWER ANY TWO IN 800 WORDS EACH: (2 x 15 =30)

36. Give an account of the Krebs' Cycle.
37. Describe the alternation of generation in *Adiantum*.
38. Write an essay on the technique of Hybridisation
39. Describe the light reactions of Photosynthesis.
