

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086

(For candidates admitted from the academic year 2009 - 10)

SUBJECT CODE: BT/AC/GB23

B. Sc. DEGREE EXAMINATION, APRIL 2011

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:

(22 x 1 = 22)

- O₂ evolved during photosynthesis is from
a) H₂O b) CO₂ c) Carbohydrates
- The common name for *Adiantum* is
a) Maiden hair fern b) Horse tail c) Club moss
- The lower portion of the sporogonium of *Funaria* is called
a) Apophysis b) Columella c) Operculum
- Tikka leaf spot is caused by
a) *Cercopsora* b) *Fusarium* c) *Colletotrichum*
- Plant cell possess this ability to regenerate
a) Totipotency b) Callus c) regeneration

II FILL IN THE BLANKS:

- Citrus canker is caused by -----
- is present as a symbiont in coralloid root
- Adiantum* belongs to ----- group
- The arrangement of bundles in *Cycas* rachis is----- shaped
- Cytokinin induces -----
- helps in dispersal of spores in *Funaria*

III STATE WHETHER TRUE OR FALSE:

- The ratio of volume of CO₂ released to the volume of O₂ absorbed during respiration is called Respiratory Quotient
- Light reaction takes place in grana
- Pollination in *Cycas* is effected by wind
- Adiantum* is an leptosporangiate fern
- Funaria* belongs to Gymnosperm
- Tikka disease is caused by a bacteria

IV. MATCH THE FOLLOWING

- | | | |
|--------------------|---|---------------------|
| 18. Coralloid root | - | Totipotency |
| 19. Krebs cycle | - | Protonema |
| 20. Tissue culture | - | Apogeo-trophic |
| 21. <i>Funaria</i> | - | Fungi |
| 22. Leaf spot | - | Citric acid pathway |

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

23. ABA
24. Peristome
25. Coralloid root
26. Fungicide
27. Sori
28. Emasculation
29. Dormancy.
30. False indusium.
31. Callus.

SECTION – B

ANSWER ANY 4 IN 300 WORDS. DRAW DIAGRAMS WHEREVER NECESSARY

(4 x 10=40)

32. Write an account on the physiological role of auxin.
33. Describe the sporophyte of *Funaria*.
34. Describe the Gametophyte of *Adiantum*.
35. Explain the T.S of rachis of *Cycas*.
36. Give the symptomatology, causal organism and control measure of Tikka disease of Groundnut.
37. Explain hybridization technique.

SECTION - C

ANSWER ANY ONE QUESTION IN 1000 WORDS. DRAW DIAGRAMS WHEREVER NECESSARY

(1 x 20=20)

38. Give a detailed account on dark reaction
39. Write an account of Plant Tissue culture and give its advantages.
