

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.

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086

(For candidates admitted from the academic year 2010 - 11)

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.
