

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086  
(For candidates admitted in during the academic year 2015 – 2016)

SUBJECT CODE: 15BT/AC/GB14

B. Sc. DEGREE EXAMINATION, NOVEMBER 2015  
BRANCH VI (a) – ADVANCED ZOOLOGY AND BIOTECHNOLOGY  
FIRST SEMESTER

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

SECTION – A (18 x 1 = 18 marks)

(I) CHOOSE THE CORRECT ANSWER: (5 X 1 = 5 MARKS)

- Synandrous means  
a) anthers fused but filaments free      b) stamens attached to petals  
c) stamens fused with gynoecium      d) anthers and filaments fused
- Lateral roots in dicots arise from  
a) pericycle      b) endodermis      c) cortex      d) epidermis
- Oospore is the fertilized part of  
a) *Aspergillus*      b) *Nostoc*      c) *Chara*      d) *Sargassum*
- Wood rot is caused by  
a) *Colleterotrichum*      b) *Polyporous*      c) *Rhizopus*      d) *Aspergillus*
- Cercospora* causes  
a) citrus canker      b) red rot of sugarcane      c) tikka disease      d) .mucormycosis

(II) FILL IN THE BLANKS: (5 X 1 = 5 MARKS)

- The inflorescence in Arecaceae is \_\_\_\_\_ .
- \_\_\_\_\_ traverses the xylem, phloem through cambium in secondary dicot root.
- \_\_\_\_\_ forms phellem towards outside and phelloderm towards inside .
- Sexual reproduction in *Chara* is \_\_\_\_\_.
- The formation of compact globular mass of hyphae during the conidial formation in *Cercospora* is called \_\_\_\_\_.

(III) STATE WHETHER THE FOLLOWING STATEMENTS ARE TRUE OR FALSE: (4 X 1 = 4 MARKS)

- Aggregation of berries is developed from the fusion of flowers.
- Passage cells of endodermis remains opposite to protoxylem.
- Life cycle in *Sargassum* is diplontic.
- Trichogyne is the elongated part of antheridium in *Aspergillus*.

**(IV) MATCH THE FOLLOWING:****(4 X 1 = 4)**

- |                    |                          |
|--------------------|--------------------------|
| 15. Verticillaster | a. <i>Colletotrichum</i> |
| 16. Zygosporangium | b. <i>Nostoc</i>         |
| 17. Conidia        | c. <i>Rhizopus</i>       |
| 18. Endospore      | d. <i>Ocimum</i>         |

**(V) ANSWER ANY SIX QUESTIONS IN 50 WORDS EACH****(6 x 3 = 18)**

19. Give a brief note on Genera Plantarum.
20. Describe cyathium inflorescence.
21. Write on fascicular and interfascicular cambium.
22. What are the characteristic features of a bicollateral vascular bundle?
23. What are conceptacles?
24. Describe a trichome.
25. Mention the importance of clamp connections.
26. What is cleistothecium.
27. Describe acervulus.

**SECTION – B**

**ANSWER ANY FOUR QUESTIONS. EACH ANSWER NOT TO EXCEED 200 WORDS. DRAW DIAGRAMS WHEREVER NECESSARY.**

**(4 x 6 = 24)**

28. Write the floral characters of Apocyanaceae.
29. Describe the merits and demerits of Bentham and Hookers system of classification.
30. Tabulate the differences between a dicot stem and a root
31. Describe the habit of *Sargassum*
32. How does *Aspergillus* reproduce asexually?
33. Give a brief account on the causal agent, symptoms and control measures of Citrus canker

**SECTION – C**

**ANSWER ANY TWO QUESTIONS. EACH ANSWER NOT TO EXCEED 1000 WORDS. DRAW DIAGRAMS WHEREVER NECESSARY.**

**(2 x 20 = 40)**

34. Enumerate the vegetative, floral characters and economic importance of Lamiaceae.
35. Explain secondary growth in dicot stem.
36. Describe the morphology and vegetative reproduction in *Chara*.
37. Explain the life cycle of *Rhizopus*.

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