

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

SUBJECT CODE: 15BT/AC/GB14

B. Sc. DEGREE EXAMINATION, NOVEMBER 2016
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)

1. The condition where protoxylem faces the periphery is termed as _____
(Endarch, exarch, diarch, polyarch)
2. To which family does the plant *Leucas* belong?
(Arecaceae, Annonaceae, Lamiaceae, Cucurbitaceae)
3. Which of the following has the ability to fix atmospheric Nitrogen?
(*Mucor*, *Chara*, *Polyporus*, *Nostoc*)
4. Which genus is referred to as 'wood rot fungus'?
(*Cercospora*, *Polyporus*, *Xanthomonas*, *Colletotrichum*)
5. Which is the causative organism for 'Tikka disease of Ground nut'?
(*Xanthomonas*, *Cercospora*, *Polyporus*, *Bacillus*)

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

6. *Mentha* belongs to the family _____.
7. _____ consists of a mass of branching thread-like hyphae.
8. *Sargassum* belongs to the family _____.
9. _____ is a protective and waxy covering of the plant epidermis.
10. Fungal hyphae consists of cross walls called as _____.

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

11. *Sargassum* is a marine algae.
12. Dicot stem is endarch in nature.
13. Red rot of sugarcane is a fungal disease.
14. *Chara* is eukaryotic in nature.

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

15. Citrus canker Euphorbiaceae
 16. *Hevea brasiliensis* saprophytic
 17. *Rhizopus* BGA
 18. *Nostoc* *Xanthomonas citri*

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

19. Stomata
 20. Globule
 21. Heterocyst
 22. Verticillaster
 23. Basidiospore
 24. Cambium
 25. Haustoria
 26. Cyathium
 27. Zygosporangium

SECTION – B

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

(4 x 6 = 24)

28. Explain the structure of a dorsiventral leaf with suitable illustrations.
 29. Mention the salient features of family Apocynaceae.
 30. Discuss the salient features of algae.
 31. What are the merits and demerits of Bentham and Hooker classification?
 32. Discuss the harmful effects of fungi.
 33. Describe asexual reproduction in *Aspergillus*.

SECTION – C

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

(2 x 20 = 40)

34. Explain the morphology and life cycle of *Chara* with neat illustrations.
 35. Elaborate in detail about the causative organism, symptoms and control measures of Red Rot of Sugarcane.
 36. Give a general outline of Bentham and Hooker Classification.
 37. With the aid of well-labelled diagrams differentiate between the anatomical features of dicot stem and root.
