Reg. No............................   Name...

B. Sc. DEGREE END SEMESTER EXAMINATION MARCH 2017
SEMESTER – **4: BOTANY**
COURSE: **15U4CPBOT4: ANATOMY AND APPLIED BOTANY**
(For Regular - 2015 Admission)

Time: Three Hours   Max. Marks: 60

PART A
Answer **all** questions. Each question carries ONE mark.
1. What are thylakoids?
2. Name the plant which is the source of Canada balsam.
3. What are growth rings?
4. What is callus?
5. What is Triticale?
6. What is intrafascicular cambium?
7. What is Apogamy ?
8. What is Somatic embyogenesis?

(1 x 8 = 8)

PART B
Answer **any six** questions. Each question carries two marks.
9. Name two plant breeding research centres in India.
10. What is Plant introduction? What are its advantages?
11. Differentiate between apomixis and amphimixis?
12. What are the applications of Tissue Culture?
13. Draw a neat labeled diagram of the sectional view of Bordered pit pairs.
14. Differentiate between endarch and exarch xylem.
15. What is Casparian thickening? What is its function?
16. Differentiate between Storied and Non –Storied Cambium.
17. Where are pneumatophores found? What is its function?
18. What are Tyloses?   What are its functions?

(2 x 6 = 12)

PART C
Answer **any four** questions. Each question carries four marks.
19. What is Mass selection? Write the procedure of Mass selection.

20. Bring out the objectives of plant breeding.

21. Give a brief description of the four categories of Sclereids.

22. Differentiate between heartwood and sapwood.

23.With the help of diagrams bring out the anatomical adaptations of Nerium leaf.

24. Explain any four types of Calcium oxalate crystals found in plants.

(4 x 4 = 16)

PART D
Answer **any two** questions. Each question carries twelve marks.

25. How does the formation and growth of Cell wall take place? Give an account of the extra cell wall

materials.

26. With the help of neat labeled diagrams bring out the difference between normal secondary

thickenings of dicot stem with that of anomalous secondary thickening in Bignonia.

27. Explain different methods used in the artificial propagation of plants. Use appropriate diagrams.

28. Explain the procedure of Mutation breeding. Bring out the merits of Mutation breeding.

(12 x 2 = 24)

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