M.Sc. DEGREE END SEMESTER EXAMINATION APRIL 2016 SEMESTER-2: BOTANY

COURSE: P2BOTT07- PLANT ANATOMY AND PRINCIPLES OF ANGIOSPERM SYSTEMATICS

(Common for Regular- 2015 Admission /Supplementary-2014 Admission) Time: Three Hours Maximum Marks: 75

- I. Answer **any eight** questions briefly; each question carries 2 marks.
 - 1. Briefly explain a cladogram.
 - 2. What are salt glands?
 - 3. Mention the aims of ICBN.
 - 4. What is Krantz anatomy?
 - 5. What do you mean by phylogenetic classification?
 - 6. Explain pharmacognosy.
 - 7. What are analogous characters? Give a suitable example.
 - 8. Differentiate resin ducts and laticifers.
 - 9. Explain the difference between variety and form.
 - 10.What is Tunica corpus theory?
 - 11. Why flower is considered a modified shoot?
 - 12.Comment on plant fibres.

$$(2 \times 8 = 16)$$

- II. Answer **any seven** questions; each question carries 5 marks.13. Describe the development of epigynous ovary.
 - 14. What are the different types of racemose inflorescence?
 - 15. Explain with diagrams the pattern of lignification in xylem.
 - 16.Differentiate plesiomorphic and apomorphic characters.
 - 17. What is the importance of floral anatomy?
 - 18. Describe the various types of fruits.
 - 19. Give an account on the adaptations of halophytes.
 - 20. Briefly explain the importance of photochemistry.
 - 21. Describe the significance of seed anatomy.
 - 22. Explain the concepts of genome analysis.

$$(5 \times 7 = 35)$$

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III. Answer **any two** questions; each question carries 12 marks.

23. Give an account on the different types of secretary tissue systems in plants.

OR

- 24. Explain with diagrams and examples nodal anatomy. Describe the pattern of nodal evolution.
- 25. Write an essay on molecular taxonomy.

OR

26. What are the principles and methods of numerical taxonomy?

 $(12 \times 2 = 24)$
