Reg. No..... Name: **U229**

MSC DEGREE END SEMESTER EXAMINATION APRIL - 2015

M SC BOTANY SEMESTER -2

COURSE: P2BOTT07- PLANT ANATOMY AND PRINCIPLES OF ANGIOSPERM SYSTEMATICS

Time: 3 Hours Max Marks: 75

I. Answer ***any eight*** questions briefly; each question carries 2 marks.

1. Differentiate ray initials and fusiform initials.

2. Explain a phylogenetic tree.

3. Comment on seed dormancy.

4. What is author citation? Give an example.

5. Write about artificial classification.

6. Enlist the anatomical adaptations of Xerophytes.

7. What is rule of priority?

8. What is nodal anatomy? Add a note on its evolution.

9. Explain leaf abscission.

10. Distinguish between paraphyly and polyphyly.

11. Explain bracts and bracteoles.

12. What is the significance of rejection of names?

(2 x 8 = 16)

II. Answer ***any seven*** questions; each question carries 5 marks.

13. Differentiate effective and valid publication.

14. What are the physical, chemical and mechanical properties of wood?

15. Explain the concept of DNA barcoding and its significance in systematics.

16. Explain the origin of branches and lateral roots in angiosperms.

17. What are secretory trichomes? Give an account on their structure and distribution.

18. Describe the anatomical peculiarities of CAM plants.

19. Explain typification with examples.

20. Write on floral anatomy and its significance.

21. Explain the various concepts of species.

22. Describe the different types of fruits.

(5 x 7 = 35)

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

23. Explain with suitable examples and diagrams the root-stem transition in angiosperms.

OR

24. Give an account on anomalous secondary thickening in stem.

25. Critically evaluate the phenetic and cladistic approaches in plant systematics.

OR

26. Explain the role of phytochemistry in plant taxonomy.

(12 x 1 = 12)