

B. Sc. DEGREE END SEMESTER EXAMINATION - APRIL 2021**SEMESTER –6: BOTANY (CORE COURSE)****COURSE: 15U6CRBOT13EL: PHYTOCHEMISTRY AND PHARMACOGNOSY**

(Common for Regular 2018 admission & Improvement 2017/Supplementary 2017/2016 /2015 admissions)

Time: Three Hours

Max Marks: 75

PART A**I. Answer ALL questions; each question carries 1 mark.**

1. Name an anti-cancerous drug of plant origin?
2. How phenols help in plant defense?
3. From which plant Flavopyridol is isolated?
4. What is the systematic position of *Aegle marmelos*?
5. Name two ayurvedic formulations with *Withania somnifera* and its uses.
6. What are pseudoalkaloids? Give examples.
7. Give the binomial for *Opium*?
8. Name any two green manures?
9. What are the chemical constituents of *Santalum album*?
10. Name any two polar solvents used in phytochemical extraction? (1 x 10 = 10)

PART B**II. Answer ANY EIGHT questions; each question carries 2 marks**

11. Name four plants that balance "tridoshas". Give the formulations
12. Explain about the different types of quinones isolated from plants.
13. Describe the morphological features of *Sida acuta*.
14. Explain hydro-distillation extraction from *Syzigium aromaticum*
15. Give the systematic position and morphology of useful part of *Adathoda vasica*?
16. Discuss the phytochemical evaluation of drugs from *Achyranthus aspera*.
17. Differentiate between pharmacognosy and pharmacology?
18. What are triterpenoids?
19. List out the pharmacological significance of *Phyllonthus niruri*?
20. What is the principle and use of Soxhlet apparatus? (2 x 8 = 16)

PART C**III. Answer ANY FIVE questions; each question carries 5 marks**

21. What are the different solvents used in phytochemistry for extraction methods? Explain its properties and uses.
22. Comment on the anatomical features of *Acorus calamus*.
23. Explain the principles of GC-MS?
24. Give an account on different extraction methods from *Rosa*.

25. Discuss on the phytochemical evaluation of drugs.
26. Describe the microscopic methods in pharmacognosy to study starch grains of potato and curcuma.
27. What are phenols? Explain its pharmacological action? (5 x 5 = 25)

PART D

IV. Answer ANY TWO questions; each question carries 12 marks

28. Explain the organoleptic, anatomical and chemical evaluation of medicinal plant part of *Kaempferia galanga*?

OR

29. Explain the different methods used for the production of volatile oil from *Ocimum basilicum*.
30. Explain briefly about the ion exchange and adsorption phenomenon of column chromatography.

OR

31. What are the different techniques employed for detecting adulteration in drugs? (12 x 2 = 24)
