

B.Sc. DEGREE END SEMESTER EXAMINATION - MARCH 2020**SEMESTER – 6: BOTANY (CORE COURSE)****COURSE: 15U6CRBOT13EL: PHYTOCHEMISTRY AND PHARMACOGNOSY***(Common for Regular 2017 Admission & Supplementary 2016 /2015 Admissions)*

Time: Three Hours

Max. Marks: 75

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

1. What is Pharmacognosy?
2. Give the scientific name of the plant described as 'Mahabala' in Ayurveda.
3. Expand HPTLC.
4. What are Naphthaquinones?
5. Give the name of any one active principle seen in *Datura stramonium*.
6. Write down any one important pharmacological action of *Adhatoda vasica*.
7. Name the plant from the Flavopiridol is extracted.
8. Give the binomial of any one aromatic plant in which petals yield a volatile oil.
9. What is Ethnobotany?
10. What are secondary metabolites? (1 x 10 = 10)

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

11. Write down the chief pharmacological action of taxol.
12. Mention any two diagnostic features of the starch grains of potato.
13. Mention any two salient features of alkaloids.
14. Compare the starch grains of Maize and Wheat.
15. Write down any two diagnostic anatomical characters of the officinal part of *Hemidesmus indica*.
16. What are Phenolics? Mention any two categories of Phenolics you have studied.
17. Write down any two important phytochemical constituents found in *Punica granatum*.
18. Mention the volatile oil composition of *Mentha piperita*.
19. What is the main use of soxhlet apparatus?
20. Write a short note on Phytosterols. (2 x 8 = 16)

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

21. Describe the classification of alkaloids.
22. Explain the pharmacological action of Aswhagandha and mention any one ayurvedic formulation from this plant
23. Mention any four anatomical features in the identification of the organoleptic part of *Achyranthes aspera*.

24. Explain how microscopy is useful in the detection of adulterants.
25. What is Mass Spectrometry? Mention how it is used in characterization.
26. Explain the role of solvents in the extraction of plant constituents.
27. How phenolics are important in pharmacology? (5 x 5 = 25)

PART D

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

28. Describe the principle and applications of HPLC

OR

29. Describe the properties, occurrence, classification and functions of Phenolics.

30. Describe the organoleptic, anatomical, chemical evaluation and pharmacological action of *Glycyrrhiza glabra* and *Aloe vera*.

OR

31. Describe the method of volatile oil extraction from *Cymbopogon* and *Santalum album*.

(12 x 2 = 24)
