

**CARMEL COLLEGE OF ARTS, SCIENCE & COMMERCE FOR WOMEN,  
NUVEM – GOA.**

**SEMESTER END EXAMINATION, JUNE 2022**

Semester: **IV of B.Sc.**

Subject: **BOTANY**

Course Title: **Herbal Technology**

Course Code: **BOS 102**

Total Marks: **60**

Date: **/06/2022**

Duration: **2 Hours**

Total No. of Pages: **02**

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**Instructions:** 1) *All questions are compulsory; however, internal choice is available.*  
2) *Figures to the **right** indicate **maximum marks** assigned to the question.*  
3) ***Draw** appropriate labelled diagrams **wherever** necessary.*

**Q. I.** Answer **any five** of the following: **(2 x 5 = 10)**

- i. Give the botanical names of any 2 plants used in the Unani system of medicine.
- ii. How are herbal crude drugs stored?
- iii. List any 4 chemical constituents of *Rauwolfia serpentina*.
- iv. Mention the organoleptic characters of *Urginea indica*.
- v. What is a herbal decoction?
- vi. Differentiate between deliberate and in-deliberate adulteration.
- vii. List any 4 advantages of herbal formulations over synthetic cosmetics.

**Q. II.** Answer **any five** of the following: **(2 x 5 = 10)**

- a. What is meant by 'garbling' in crude drug preparation?
- b. Name the biological source and any two chemical constituents of *Andrographis paniculata*.
- c. State the organoleptic characters of *Cymbopogon citratus*.
- d. Describe any one method to detect flavonoids in natural drugs.
- e. List the factors affecting the quality of herbal drugs.
- f. Enumerate the tools for quality control of herbal drugs.
- g. Name any 4 essential oils used in aromatherapy.

**Q. III. A.** Summarize the methods used for drying plant materials for the preparation of crude herbal drugs. **(5)**

**OR**

A. State any three chemical constituents and three medicinal uses of *Ocimum sanctum*. **(5)**

B. Discuss the importance of medicinal plants. **(5)**

**Q. IV.** A. Enumerate any three chemical constituents and three medicinal uses of *Allium sativum* (5)

**OR**

A. Describe the plant morphology of *Curcuma longa*. (5)

B. Give an account of the organoleptic characters and the medicinal uses of *Zingiber officinale*. (5)

**Q. V.** A. Explain the hot continuous extraction method for crude drug preparation. (5)

**OR**

A. Summarize any two tests to detect alkaloids in natural drugs. (5)

B. Explain the 4 methods of microscopic evaluation for quality control of herbal drugs. (5)

**Q. VI.** A. Give an account of herbal plants used in cosmetic formulations for skincare. (5)

**OR**

A. Describe the herbal plants used in cosmetic formulations for hair care. (5)

B. Elaborate on the herbal plants used in cosmetic formulations for oral care. (5)

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