

Your Roll No.....

M.Sc. BOTANY
SEMESTER III EXAMINATION –2023
PAPER CODE: MBO-CC303
PAPER TITLE: PLANT RESOURCE UTILIZATION AND MEDICINAL BOTANY

Time: Three hours

Maximum Marks: 75

Attempt ALL questions. All parts of a question must be attempted in continuation. Start answering each question on a new page. Cite examples and draw labelled diagrams wherever necessary.

Q.1.

A). Answer the following questions briefly:

[5 x 1 = 5]

- i. “International Yoga Day” is celebrated on? What was the theme of International Yoga Day 2022?
- ii. Endemism
- iii. Expand AYUSH?
- iv. Define Caryopsis?
- v. Etoposide, an antitumor agent, is obtained from?

B). Write the active constituent/s and family name of following medicinal plants:

[5 x 2 = 10]

- i. *Caesalpina spinosa*
- ii. *Ginkgo biloba*
- iii. *Stevia rebaudiana*
- iv. *Taxus baccata*
- v. *Atropa belladonna*

Q.2. Discuss the primary and secondary centers of origin elaborated by Vavilov for the origin of cultivated plants. What are the limitations of Vavilov’s theory of origin? **[15]**

OR

Elaborate critically the role of biotechnological advancements in crop improvement?

Q.3. Give botanical description, distribution, and uses of

[ANY THREE]

[3 x 5 = 15]

- a). Rice
- b). Shisham
- c). Safflower
- d). Coffee
- e). Rubber

P.T.O.

Q.4. Write a short note on botanical characteristics, adulteration, chemical constituents and medicinal uses of **[ANY THREE]** **[3 x 5 = 15]**

- a). *Digitalis purpurea*
- b). *Catharanthus roseous*
- c). *Zingiber officinale*
- d). *Artemisia annua*
- e). *Plantago ovata*

Q.5. Give a detailed introduction of Indian Systems of medicine? **[15]**

OR

Write notes on:

[2 x 7.5 = 15]

- a). Controversial drugs in Indian medicine
- b). Role of plant-based drugs in anti-cancer research