

2023

BOTANY — HONOURS

Paper : DSE-A-3

(Medicinal and Ethnobotany)

Full Marks : 50

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

1. Answer *any five* questions :

- (a) What is folk medicine? Give example.
- (b) Write combinations of 'TRIDOSHA' in Ayurveda.
- (c) Name any two endemic tribes of India.
- (d) Name one alkaloid and its source plant used for treating systemic hypertension.
- (e) Differentiate between primary and secondary metabolites.
- (f) Write the chemical nature of 'sennoside' and 'diosgenin'.
- (g) What do you mean by 'Siddha' system of medicine?
- (h) What are essential oils?

2×5

2. Answer *any two* questions :

- (a) Give an outline of basic metabolic pathways and origin of secondary metabolites in plants.
- (b) Write briefly the relevance of 'Ayurveda' in modern time.
- (c) Write a brief note on application of ethnobotanical knowledge in conservation of plant communities.

5×2

3. Answer *any three* questions :

- (a) Mention the source plants (scientific names) with family, parts used and therapeutic applications of the following plant drugs : (1+½+1)×4
 - (i) Solasodine
 - (ii) Atropine
 - (iii) Quinine
 - (iv) Vinblastine.

Please Turn Over

- (b) Polyherbal formulation has enhanced therapeutic effect. — Explain. Write the ethnomedicinal remedies of Jaundice and Infertility. 4+3+3
- (c) Mention the organoleptic, microscopical and chemical evaluation of crude drugs, citing suitable examples. 3½+3+3½
- (d) How do terpenoids and phenolic compounds play significant roles in protection of pathogenic microbes and herbivores? 5+5
- (e) Based on carbon numbers, what are the different types of terpenoids found in nature? Distinguish between 'true' and 'proto' alkaloids. Give suitable examples. 4+3+3

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