

2021

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: 2×5
 - (a) What is Pharmacopoeia? Give an example.
 - (b) What are unorganized drugs? Give one example.
 - (c) Write one therapeutic use of Diosgenin and state the chemical nature of it.
 - (d) What are curcuminoids? Name the source plant.
 - (e) What is 'gutta-percha'?
 - (f) Give one example each from macrobotanical and microbotanical evidences of Paleoethnobotany.
 - (g) What do you mean by Unani system of medicine?
 - (h) Why terpenes are referred to as isoprenoids?

2. Answer **any two** of the following:
 - (a) Write a short note on principles and applications of Ayurveda system of medicine. 5
 - (b) Write a brief note on the following: 2½+2½
 - (i) organoleptic evaluation
 - (ii) biological evaluation.
 - (c) What do you mean by polyherbal formulations? Cite an example of polyherbal formulation effective against a particular disease. 4+1

3. Answer **any three** of the following:
 - (a) Explain with an example how quantitative microscopy is used in drug evaluation. Discuss the classification of drugs on the basis of chemical constitution and therapeutic effect. Cite a few merits and demerits based on these classifications. 2+3+3+1+1

Please Turn Over

- (b) Mention the source plants, parts used, one therapeutic application and the chemical nature of the following drugs: ($\frac{1}{2}+\frac{1}{2}+\frac{1}{2}+\frac{1}{2}$) \times 5
- (i) Atropine
 - (ii) Catechin
 - (iii) Solasodine
 - (iv) Capsaicin
 - (v) Gingerol.
- (c) Write the protective action of phenolics and terpenoids against pathogenic microbes and herbivores. 5+5
- (d) What do you mean by folk medicine? Write some remedies from natural sources for the treatment of: 1+3+3+3
- (i) jaundice
 - (ii) infertility
 - (iii) cardiac disorders.
- (e) Give an outline of inter-relationship of basic primary and secondary metabolite biosynthesis in plants. Distinguish between true alkaloids and proto-alkaloids with examples. Write the source and uses of vinblastin. 5+3+2
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