Total No. of Questions : 8] **[Total No. of Pages : 2**

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[3656]-401
Final Year B. Pharmacy
PHARMACOGNOSY - III
(2004 - 05 Old Course)

Time : 3 Hours] ***[Max. Marks : 80***

Instructions to the candidates:

1) ***Question Nos. 1 and 5 are compulsory. Out of the remaining attempt 2 questions from Section I and 2 questions from Section II.***
2) ***Answers to the two sections should be written in separate books.***
3) ***Neat diagrams must be drawn wherever necessary.***
4) ***Figures to the right indicate full marks.***

SECTION - I

Q1) Describe the following (Any Five) : **[10]**

a) Medicinal importance of Rauwolfia.

b) Adulterants for Datura.

c) Vitali morin reaction & its significance.

d) Chemistry of Pilocarpus.

e) Preparation of Black Tea.

f) Chemical test for Lobelia.

Q2) State microscopical difference between the following with neat diagrammatic illustration.

a) Datura & Vinca Leaf **[7]**

OR

Rauwolfia & Withania root.

b) Discuss in details Pharmacognostically crude drug-OPIUM. **[8]**

Q3) a) Why industrial production & secondary metabolite is necessary? Explain factors affecting the production of secondary metabolites **[7]**

b) What are quinoline alkaloids? Give detail account of drug containing quinoline alkoloids. **[8]**

P.T.O.

Q4) Write a note on (ANY THREE) : **[15]**

a) Mold causing allergy.

b) Biotransformation.

c) Safed Musali & Papali.

d) Dimeric indole dihydroindole alkaloids in Vinca.

e) Marine Toxins.

SECTION - II

Q5) Describe the following (Any Five) : **[10]**

a) Bhasma & Churna.

b) Detection of Caffeine by TLC.

c) Swelling Index.

d) Define Extraction.

e) Hair growth enhancer.

f) Asava and arishta.

Q6) a) Write about chemical tests used for identification of various chemical constituents found in natural products. **[7]**

b) Describe plant based industries & institutions involved in working on medicinal & aromatic plants. **[8]**

Q7) a) Write about herbs/herbal ingredient used in preparation of hair cosmetics. **[7]**

b) Why WHO guidelines are important for herbal plants? Explain with suitable examples. **[8]**

Q8) Write notes on (ANY THREE) : **[15]**

a) Froath Floating technique.

b) Application of TLC in natural products.

c) Evaluation of Ayurvedic Formulations.

d) Soxhlet Extraction.

e) Ghrita.

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Total No. of Questions : 8] **[Total No. of Pages : 2**

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[3656]- 407
Fourth Year B.Pharmacy
Pharmaceutical Analysis - III
(2004 Course)

Time : 3 Hours] ***[Max. Marks : 80***

Instructions to the candidates:

1) ***Question No. 1 and 5 are compulsory.***
2) ***Out of the remaining, attempt two questions from section-I and two questions from section-II.***
3) ***Answers to the two sections should be written in separate answer books.***
4) ***Figures to the right indicate full marks.***
5) ***Draw well labeled diagrams wherever necessary.***

SECTION - I

Q1) a) Describe the various types of molecular vibrations. **[5]**

b) Explain 'Double Resonance Technique'. **[5]**

Q2) a) Explain interferences in Atomic Absorption Spectroscopy. **[7]**

b) What is chemical shift? Describe the factors affecting chemical shift. **[8]**

Q3) a) Explain fragmentation pattern in mass spectroscopy. **[7]**

b) Give the principle and applications of Isotope Dilution Technique. **[8]**

Q4) Write short notes (any three) : **[15]**

a) Fermi Resonance.

b) Spin-spin Splitting.

c) ICP Torch

d) TOF Analyzer.

SECTION - II

Q5) a) Explain sample Injection Techniques in G.C. **[5]**

b) Explain in brief the applications of HPTLC. **[5]**

Q6) a) Explain Van Deemter Equation. **[5]**

b) Describe various quantitation techniques for G.C. **[10]**

P.T.O.

Q7) a) Enlist the types of pumps in HPLC and write a note on reciprocating pumps. **[7]**

b) What are ideal characteristics of detector in G.C. Add a note on Electron Capture Detector. **[8]**

Q8) Write short notes (any three) : **[15]**

a) UV-dectors in HPLC.

b) Super critical fluid extration.

c) HPTLC-Instrumentation.

d) System suitability parameters in HPLC.