PHARMACOGNOSY (SEMESTER - 8)

CS/B.PHARM/SEM-8/PT-802/09

1. .....
Signature of Invigilator

2. .....
Signature of the Officer-in-Charge

Reg. No.

Roll No. of the Candidate

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CS/B.PHARM/SEM-8/PT-802/09

ENGINEERING & MANAGEMENT EXAMINATIONS, APRIL – 2009

PHARMACOGNOSY (SEMESTER - 8)

Time : 3 Hours] [Full Marks : 70

INSTRUCTIONS TO THE CANDIDATES :

1. This Booklet is a Question-cum-Answer Booklet. The Booklet consists of **32 pages**. The questions of this concerned subject commence from Page No. 3.
2. a) In **Group – A**, Questions are of Multiple Choice type. You have to write the correct choice in the box provided **against each question**.
   b) For **Groups – B** & **C** you have to answer the questions in the space provided marked 'Answer Sheet'. Questions of **Group – B** are Short answer type. Questions of **Group – C** are Long answer type. Write on both sides of the paper.
3. **Fill in your Roll No. in the box** provided as in your Admit Card before answering the questions.
4. Read the instructions given inside carefully before answering.
5. You should not forget to write the corresponding question numbers while answering.
6. Do not write your name or put any special mark in the booklet that may disclose your identity, which will render you liable to disqualification. Any candidate found copying will be subject to Disciplinary Action under the relevant rules.
7. **Use of Mobile Phone and Programmable Calculator is totally prohibited in the examination hall.**
8. You should return the booklet to the invigilator at the end of the examination and should not take any page of this booklet with you outside the examination hall, **which will lead to disqualification**.
9. Rough work, if necessary is to be done in this booklet only and cross it through.

No additional sheets are to be used and no loose paper will be provided

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Marks Obtained

	Group – A										Group – B			Group – C			***Total Marks***	***Examiner's Signature***
Question Number																		
Marks Obtained																		

.....
Head-Examiner/Co-Ordinator/Scrutineer

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GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternative of any *ten* of the following : 10 × 1 = 10

i) The example of a liquid alkaloid is

a) Quinine b) Nicotine
c) Caffeine d) Morphine. ☐

ii) 2D and 3D chromatography can be done in

a) TLC b) Paper Chromatography
c) Column Chromatography d) HPLC. ☐

iii) In Soxhlet extraction generally water is not used as solvent, because

a) It is a highly volatile solvent b) Its chemical nature is destructive
c) It can destroy the constituents d) Its boiling point is high. ☐

iv) Different species of Ephedra can be identified by observing the nature of

a) Inner surface b) Outer surface
c) Trichomes d) Scale-leaf. ☐

v) Composition of Dragendroff's reagents

a) Potassium iodide b) Potassium mercuric iodide
c) Iodine in potassium iodide d) Potassium bismuth iodide. ☐

vi) "Edge-effect" occurs in TLC

a) When the solvent front in middle of TLC plate moves faster than that of the edge.
b) When the solvent front in middle of TLC plate moves slower than that of the edge.
c) When solvent front stops moving in middle of the TLC plate.
d) When solvent front at the edge moves faster than the middle of TLC plate.

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vii) What type of "Stomata" present in cocoa leaf ?

a) Diacytic b) Paracytic

c) Anisocytic d) Anomocytic. [ ]

viii) Which of the following does not contain Morphine ?

a) P. somniferum b) P. orientale

c) P. bracteatum d) P. dubium. [ ]

ix) Henbane is the synonym of

a) Pilocarpus b) Kurchi

c) Datura d) Hyocyamus. [ ]

x) The family of Kurchi is

a) Rubiaceae b) Rutaceae

c) Leguminosaea d) Apocynaceae. [ ]

xi) Which of the following is used as spraying reagent for amino acid ?

a) Ferric chloride b) Alkaloid

c) Flavonoid d) Carbohydrate. [ ]

xii) Guvacine is an alkaloid obtained from

a) Solanum b) Opium

c) Veratrum d) Areca. [ ]

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. 3 × 5 = 15

2. Write the source, chemical constituents and uses of the following drugs : 5

a) Pilocarpus b) Cocoa c) Kurchi

d) Opium e) Ephedra.

3. Explain the morphological and Microscopical characters of Datura leaf with neat labelled diagram. 2 + 3 = 5

4. Write short note on plant sweeteners. 5

5. a) What is chromatography ?

b) What are the two main principles of chromatography ? Give examples for each.

c) What do you mean by normal phase and reverse phase chromatography ? 5

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6. What is meant by Rf value ? How is it determined ? Name the solvent ratio / composition used as solvent system in alkaloid detection. 1 + 1 + 3 = 5

GROUP – C

(Long Answer Type Questions)

Answer any *three* questions. 3 × 15 = 45

7. Explain in detail about the phytochemical screening of Flavonoids including extraction, chemical tests, isolation, chromatography, purification and structure determination.

2 + 2 + 6 + 2 + 2 + 1 = 15

8. Explain the biogenesis of any two secondary metabolites of pharmaceutical importance. $7\frac{1}{2} + 7\frac{1}{2} = 15$

9. Define chromatography ? How is it classified ? Explain HPLC (High pressure liquid chromatography) with its application in evaluation of herbal drug.

2 + 2 + 8 + 3 = 15

10. Write the biological source, cultivation, collection, chemical constituent, uses, specific chemical test and diagnostic macroscopical characters of the following crude drugs :

    a) Cathananthus

    b) Opium. $2 \times 7\frac{1}{2} = 15$

11. Write short note on

    a) Mevalonic acid pathway & biosynthesis of isoprenoid.

    b) Aromatic biosynthesis via Shikimic acid pathway. 15

END

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