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Name:	A
Roll No.:	An Adaptive Of Constraint of the State of State
Invigilator's Signature :	

CS/B.PHARM (OLD)/SEM-8/PT-802/2012

2012 PHARMACOGNOSY

Time Allotted: 3 Hours Full Marks: 70

The figures in the margin indicate full marks.

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

GROUP - A (Multiple Choice Type Questions)

1. Choose the correct alternatives for any *ten* of the following:

 $10 \times 1 = 10$

- i) Purine nucleus of Caffeine is the fusion of
 - a) Pyridine and piperidine
 - b) Pyrimidine and Pyridine
 - c) Imidazole and Pyrimidine
 - d) Imidazole and Pyrrolidine.
- ii) Therapeutically relevant part of Physostigma is
 - a) Seed

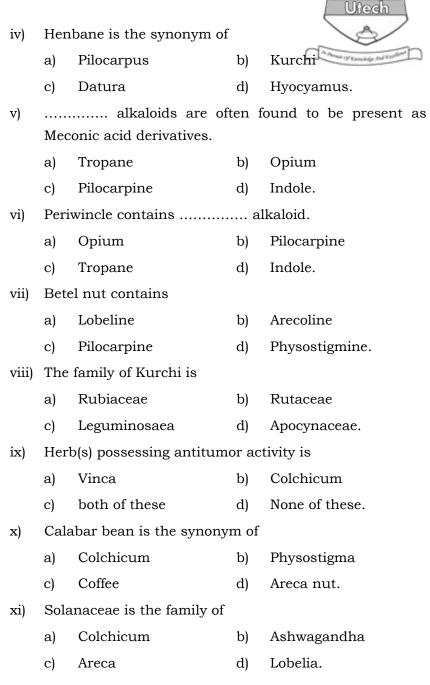
b) Leaf

c) Root

- d) Bark.
- iii) Which of the following does not contain Morphine?
 - a) P. somniferum
- b) P. orientale
- c) P. bracteatum
- d) P. dubium.

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- xii) Which of the following is not a plant bitter?
 - a) Quassia
- b) Gentian
- c) Kalmegh
- d) Stevia.
- xiii) Which of the following is used as spraying reagent for amino acid?
 - a) Ferric chloride
- b) Ninhydrin
- c) Hager's reagent
- d) Ammonia solution.
- xiv) Which of the following is not a plant secondary metabolite?
 - a) Saponin
- b) Alkaloid
- c) Flavonoid
- d) Carbohydrate.

GROUP - B

(Short Answer Type Questions)

Answer any *three* of the following.

 $3 \times 5 = 15$

- 2. Write short note on plant sweeteners.
- 3. 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?
- 4. a) Write the general tests for alkaloids.
 - b) Write on the following:
 - i) Vitali-Morin test
- ii) Murexide test.

2 + 3

- 5. Write on cultivation, collection and preparation of Opium.
- 6. Write down the macroscopic and microscopic features of
 - a) Physositigma
- OR
- b) Hyoscyamus

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- a) Describe in brief, various steps involved from authentication of drug to preparation of final extract using soxhlet extractor.
 - b) Which type of drugs cannot be extracted by soxhlation and why?

GROUP - C

(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

- 8. a) Write down the biological sources, chemical constituents and uses of any three of the following:
 - i) Vinca,
- ii) Belladonna
- iii) Coffee

- iv) Kurchi
- v) Physostigma.
- b) Write down the chemical test(s) for identification of Opium alkaloids. $(3 \times 4) + 3$
- 9. a) Write short note on Column chromatography and its role in phytochemical studies.
 - b) What are TLC, HPTLC and preparative TLC?
 - c) What are the advantages of HPTLC over TLC?
 - d) What are the various methods of detection in TLC?

6 + 4 + 1 + 4

- 10. a) Define and classify alkaloids with suitable examples.
 - b) Explain extraction procedure for alkaloids.
 - c) Give example of two liquid alkaloids and two colored alkaloids. 9 + 4 + 2
- 11. Write short note on the following:
 - a) Mevalonic acid pathway & biosynthesis of isoprenoid.
 - b) Aromatic biosynthesis via Shikimic acid pathway.
- 12. Write down the complete plant profile of any *one* of the following:

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i) Datura OR ii) Colchicum.

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