

03/06/16

Total No. of printed pages = 6

PY 1324010

Roll No. of candidate

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

2016

B. Pharm 4th Semester End-Term Examination
PHARMACOGNOSY - IV

Full Marks-100 Pass Marks-35 Time-Three hours

The figures in the margin indicate full marks
for the questions.

1. Answer any *five* questions : 5×6=30
- A. (i) Why is tannic acid used as an antidote
in cases of poisoning by alkaloids.
- (ii) Why there is colour change in the inner
surface of cinchona bark during drying ?
- (iii) What is ergotism ?
- (iv) What is the significance of Meconic
acid ?
- (v) What is 'twilight sleep' ?
- (vi) What is the type of alkaloids we have
in Nux vomica ? 1×6=6

[Turn over

B. Fill up the blanks : $1 \times 6 = 6$

- (i) Alkaloids are found in the form of their meconates in (cinchona, ephedra, opium, tea)
- (ii) Kurchi is used as (antiamoebic, antispasmodic, antiemetic, antimalarial)
- (iii) Codeine is the derivative of morphine. (ethyl, acetyl, methyl, dihydro)
- (iv) Strychnine contains nucleus. (indole, imidazole, quinoline, phenylalanine)
- (v) Ma-Huang is the synonym for (Ephedra, Datura, Cannabis, Rhubarb).
- (vi) Microsphenoidal sandy crystals are present in (wild cherry bark, cinchona, cinnamon, kurchi).

C. Write true or false. If false, rewrite the correct answer. $1 \times 6 = 6$

- (i) Both water soluble and water insoluble active fractions of ergot show oxytocic property.
- (ii) Annulations have some significance in Ipecac.

(iii) Of the four different varieties of opium, Indian opium contains maximum emodin.

(iv) Active constituents of Rauwolfia are present in the milky latex.

(v) The tropane alkaloids are present in the leaves and then stored in the roots.

(vi) Cinchona alkaloids do not answer vitali-test.

D. Comment on the followings : $1 \times 6 = 6$

(i) Why coffee powder has to be boiled several times in chloral hydrate before a microscopic mount is made ?

(ii) During the ripening of the capsule and storage morphine content decreases.

(iii) High skill is required for incising poppy capsules.

(iv) Why the Solanaceous drugs are to be dried rapidly in shade between 40°C and 50°C ?

(v) Why are the alkaloidal salts in use in commerce ?

(vi) Care is to be taken while harvesting Rauwolfia, so that the root bark is kept intact. Comment.

E. Arrange the family according to drugs :
1×6=6

- | | |
|-----------------|---------------|
| (i) Kurchi | Euphorbiaceae |
| (ii) Amla | Liliaceae |
| (iii) Brahmi | Rubiaceae |
| (iv) Aswagandha | Apocynaceae |
| (v) Ipecac | Solanaceae |
| (vi) Satavari | Umbelliferae |

F. (i) What is chromatography ? 1×6=6

- (ii) Write the name of two absorbents.
- (iii) Write the name of one alkaloid which is liquid in nature.
- (iv) What is the thickness of Silica gel layer on a preparative TLC ?
- (v) What are 'gluco-alkaloids' ?
- (vi) Write the name of two natural allergens.

2. Answer any *eight* questions : 5×8=40

2.1. Define alkaloids. Write a note on exceptional alkaloids. 5

2.2. (a) Why some alkaloids in Cinchona fluorescence and which are these ?

(b) Cinchona is the dried of cultivated trees of C, C, C, C..... family. 2+3=5

2.3. Write the morphological character of Nux vomica with neat diagram. 5

2.4. What is the significance of T.L.C in pharmacognosy laboratory ? 5

2.5. Write short notes on natural allergen. 5

2.6. Differentiate between paper and column chromatography. What do you mean by partition coefficient ? 2+3=5

2.7. Write a note on the phenolic and non-phenolic alkaloids of Ipecac. 5

2.8. Write the botanical source, family, active constituents and uses of any drug which contains Brucine. 5

2.9. Write the botanical source, family, active constituents, uses and two marketed preparation of Gokhru. 5

2.10. Write the chemical classification of alkaloid with example. 5

3. Answer any three : 10×3=30

3.1. What is Ergot ? What are the different stages in the life cycle of ergot ? What is the significance of each stage ? 10

3.2. Describe the pharmacognostic report of any drug which contain Morphine. 10

3.3. Give the difference between photodynamic and photosensitizing agent. Describe in brief the utilization of photosensitizing substances in therapy of skin diseases. 5+5=10

3.4. Name the important Solanaceous drugs. Explain the character, active constituents and uses of any one of them. 5+5=10