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Total No. of printed pages = 7

PY 1324010

Roll No. of candidate

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2017



**B. Pharm 4th Semester End-Term Examination**

**PHARMACOGNOSY - IV**

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

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

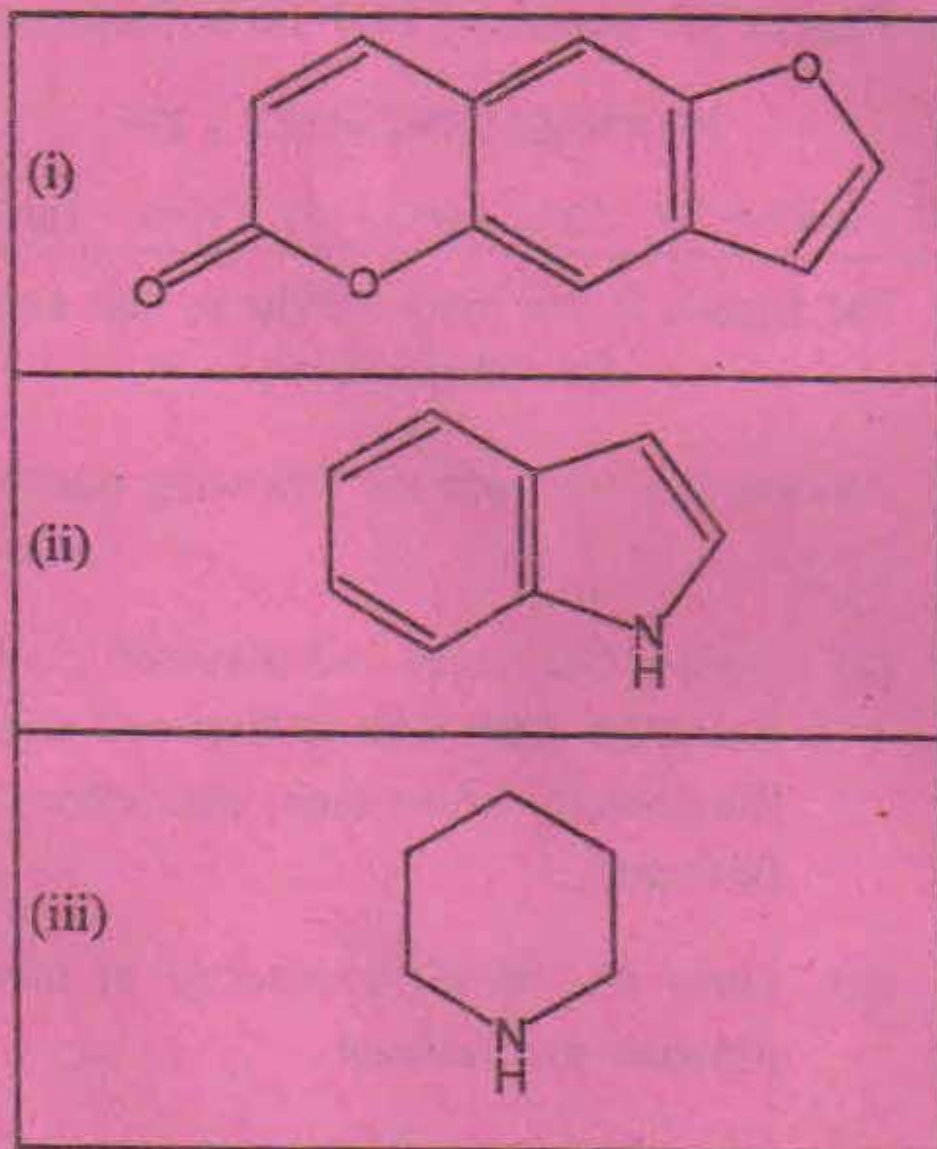
1. Answer any *ten* from the following questions :

3×10=30

- (a) Name the three adulterated drugs of Belladonna herb with at least one significant diagnostic character deflecting from Belladonna.
- (b) Draw the chemical structure of morphine, piperine and caffeine.
- (c) Give the botanical name of tea, coffee and cocoa.

[Turn over

- (d) Give the Ayurvedic medicinal utilization of Shilajit, Rasna and Satavari.
- (e) Draw the schematic diagram of HPTLC instrumentation.
- (f) Name the basic ring nucleus of the following categories of phytochemical class :



(g) Match the correct synonyms of drugs :

Group A	Group B
(a) Angel's trumpet	(i) Lobelia leaf
(b) Deadly Night Shade	(ii) Belladonna leaf
(c) Asthma weed	(iii) Datura leaf

(h) Fill up the gaps :

- (i) Botanical name of Kurchi is \_\_\_\_\_.
- (ii) Family of Withania is \_\_\_\_\_.
- (iii) Medicinal uses of Rauwolfia is \_\_\_\_\_.

(i) Write true or false. If 'false' re-write the correct answers. If 'true' justify in short.

- (i) Morphine is having a monophasic action on the central nervous system. (True / False).
- (ii) High skills is required for incising poppy capsules. (True / False)
- (iii) Drying of leaf drugs is necessary. (True / False)

- (j) Choose the correct answer :
- (i) Crowfig is the synonym of \_\_\_\_\_.  
(Veratrum / Nux-vomica / Pilocarpus / Ephedra)
  - (ii) Indian opium has a marketed weigh of \_\_\_\_\_.  
(250g / 450g / 900g / 1000g)
  - (iii) Chemical test of Tropane alkaloid is \_\_\_\_\_.  
(Van-Urks / Murexide / Vitali-morin)
- (k) Give the specific English meaning of the following terms of crude drugs :
- (i) Serpentine
  - (ii) Ma-huang
  - (iii) Chyawanprash
- (l) From the following crude drugs, choose the correct parts of the plant used in medicine :
- (i) Arjuna (Bark / Leaf / Root / Flowers)
  - (ii) Amla (Roots / Leaf / Whole plant / Fruit)
  - (iii) Black pepper (Seeds / Fruits / Roots / Stem)

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

- (a) Describe in details the various methods used to extract and isolate alkaloids.
- (b) Write in brief the significance of thin layer chromatography.
- (c) Describe in details the pharmacognostical study of Areca nut.
- (d) Give the vernacular name, botanical name, chemical constituents, medicinal uses and marketed formulation of Guggul.
- (e) Give the significance of pharmacognostical diagnostic characters between the two types of Gokhru.
- (f) Write the botanical names of at least ten important plant ingredients of Chyawanprash.
- (g) Write a short note on the mechanism of action of furanocoumarins as photosensitizing agent.
- (h) Write the difference between the two controversial sources of Brahmi. Name the marketed formulation bearing Brahmi as active ingredients.

- (i) Write at least two important diagnostic characters of Lobelia, Datura and Vinca leaf taking into account their morphological or microscopy.
- (j) Write the Ayurvedic terminology of the following preparations :
- (i) Powder preparations
  - (ii) Decoction
  - (iii) Medicated oils
  - (iv) Inorganic and metal preparations
  - (v) Paste

3. Answer any *three* from the following questions :  
10×3=30

- (a) Name any two protozoal parasites causing malaria. Write in details the systematic pharmacognostical study of Cinchona and its action on malaria. 2+8=10
- (b) Define immunoglobulin and name the immunoglobulins involved in type-I and type-II. Classify allergens and describe in details the different categories of contactant allergens with examples. 3+2+5=10

(c) Define ergotism. Describe in details the life cycle of ergot fungus with a neat diagram. Give the biological source, chemical constituents, chemical test and medicinal uses of ergot.  $1+5+4=10$

(d) Write short notes on any *two* of the following :  $5+5=10$

(i) Cultivation, collection and processing of Opium alkaloids.

(ii) Preparation of allergenic extracts.

(iii) Principles and working of HPLC instrumentation.