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**PY 1324010**

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**2019**

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

**PHARMACOGNOSY – IV**

**(Old Regulation)**

Full Marks – 100

Time – Three hours

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

**SECTION – A (Multiple choice questions)**

1. Choose the correct answer from the following:  
(10 × 1 = 10)
- (i) Which of the following possess potent analgesic property?
- (a) Morphine
  - (b) Strychnine
  - (c) Quinidine
  - (d) Colchicine

**[Turn over**

- (ii) Which one of the following is the common vernacular name of *Strychnos nux-vomica*?
- (a) Ma-huang
  - (b) Crow Fig
  - (c) Thorn apple
  - (d) Deadly night shade
- (iii) Tropane alkaloids gives specific positive test with \_\_\_\_\_ reagent.
- (a) Van Urk's reagent
  - (b) Murexide reagent
  - (c) Vitali Morin reagent
  - (d) Shinoda's reagent
- (iv) Which of the following plants uses hypoallergenic reactions in natural cosmetics?
- (a) Orris root      (b) *Dieffenbachia plants*
  - (c) Belladonna      (d) Poison oak
- (v) Family of Rauwolfia is \_\_\_\_\_
- (a) Leguminosae
  - (b) Compositae
  - (c) Scrophylariaceae
  - (d) Apocyanaceae
- (vi) Which of the following disorders takes place by TYPE – IV allergenic reaction?
- (a) Rhinitis
  - (b) Sinusitis
  - (c) Dermatitis
  - (d) None of the above

- (vii) Which of the following company manufactures the improved and high quality TLC spreader?
- (a) DESAGA (West Germany)
  - (b) MERCK (Germany)
  - (c) PFIZER (USA)
  - (d) None of the above
- (viii) STAHL's triangle is specifically used to \_\_\_\_\_
- (a) Select the mobile phase and stationary phase in TIC
  - (b) Correct the edge and tailing effect in TLC
  - (c) Determine the methods of application of samples in TIC
  - (d) None of the above
- (ix) In Vinca alkaloid, VAMP combination regime for the treatment of cancer stands for \_\_\_\_\_
- (a) Vincristine, Amoxicillin, Methotrexate and paracetamol
  - (b) Vinblastine, Amethopterine, 6-mercaptopurine and paracetamol
  - (c) Vindoline, Amoxicillin, Methotrexate and prednisone
  - (d) Vincristine, Amethopterine, 6-mercaptopurine and prednisone

(x) Which of the following Ayurvedic preparation is use in erectile dysfunction?

- (a) *Bael*
- (b) *Shilajit*
- (c) *Gymnema*
- (d) *Punarnava*

SECTION-B (Descriptive questions)

Answer the following questions (*any six*) (6 × 15 = 90)

2. (a) Match the following: (5 × 1 = 5)

Group A	Group B
(a) Indole alkaloids	(i) Solanidine
(b) Pyridine alkaloids	(ii) Emetine
(c) Quinoline alkaloids	(iii) Arecoline
(d) Isoguinoline alkaloids	(iv) Cinchonine
(e) Steroidal alkaloids	(v) Reserpine

(b) Describe the detailed systematic pharmacognostical study of **any two** from the following: (2 × 5 = 10)

- (i) *Solanum*
- (ii) *Hyoscyamus*
- (iii) *Catharanthus*

3. (a) Describe in detail the properties, chemical test and classification of alkaloids. (2+2+4)
- (b) Write at least two important diagnostic characters each of Cinchona, Nux-vomica and Belladonna taking into account their morphological or microscopical properties. (3)
- (c) Give the botanical name of Pilocarpus, datura, withania and black pepper. (4)
4. (a) Give the ayurvedic vernacular name of *Emblica officinalis*, *Azadirachta indica* and *Adhatoda vasica*. (1 × 3 = 3)
- (b) Describe in detail the Biological source, chief chemical constituent(s) and marketed formulations of the following ayurvedic drugs. (4 × 3 = 12)
- (i) Shankhapushpi
- (ii) Brahmi
- (iii) Tulsi
- (iv) Guggul
5. (a) Define photosensitizing agents and photodynamic agents with suitable examples. Describe in detail the therapeutic utilization of photosensitizing and photodynamic agents. (2+6)
- (b) Define allergenic extracts. Discuss in detail the methods of preparation, standardization, stability testing and storage of allergenic extracts (1+6)
6. (a) Give the full abbreviated form of TLC, HPTLC, HPLC and LC-MS. (4)
- (b) Differentiate between TLC and HPTLC. (4)
- (c) Enumerate the different types of stationary phase. Describe in detail the different methods incorporated for the preparation of the stationary phase in TLC. (2+5)

7. (a) Define the terms stationary phase, mobile phase, solvent front, retention factor ( $R_f$ ) and edge effect. Classify the different types of chromatographic techniques. (5+5)
- (b) Write a detail note on TLC. (5)
8. (a) Answer the following question: ( $5 \times 1 = 5$ )
- (i) Name the two adulterated drugs of Belladonna herb
- (ii) Morphine on acetylation produces \_\_\_\_\_
- (iii) Botanical name of Lobelia herb is \_\_\_\_\_
- (iv) Give atleast three medicinal plant ingredients composition of Chyawanprash.
- (v) Why ergot requires proper storage? Justify.
- (b) Give the chemical structure of piperine, brahminine, satavarin – IV and nicotine. ( $1 \times 4 = 4$ )
- (c) Give the medicinal uses and ayurvedic marketed formulation of satavari, rasna and shilait. ( $2 \times 3 = 6$ )
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