

Roll No. 

Total No. of Pages : 02

Total No. of Questions : 10

**B.Pharma (2012 to 2016) (Sem.-5)****PHARMACOGNOSY-IV**

Subject Code : BPHM-504

M.Code : 70430

Time : 3 Hrs.

Max. Marks : 80

**INSTRUCTION TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of FIFTEEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students has to attempt any FOUR questions.
3. SECTION-C contains FOUR questions carrying TEN marks each and students has to attempt any THREE questions.

**SECTION-A****1 Answer briefly/Fill in the blank :**

- a) Draw the structures of atropine and pilocarpine.
- b) Give the biological source of the most common adulterant of belladonna. How will you differentiate it from genuine belladonna?
- c) Give identification tests for pepsin.
- d) Arrange the following chromatographic techniques in increasing order of the particle size of stationary phase generally used in them :  
HPLC, TLC, HPTLC, Column chromatography
- e) Draw chemical structure of reserpine and emetine.
- f) Give main chemical constituents (along with structures) of nux vomica.
- g) Mayer's reagent is added to caffeine solution. What will be the result and why?
- h) Give examples of two plant bitters with their complete biological source and the bitter constituent present in them.
- i) What are oolong, green and yellow teas?
- j) Which is the most common adulterant of cinchona and how will you differentiate it from genuine drug?

- k) Give important uses of colchicum and kurchi.
- l) Give principle of dopler counter current chromatography.
- m) Give biological source and one **major** use of Datura and solanum.
- n) Name two species of rauwolfia that are used as adulterants/allied species for *Rauwolfia serpentina*.
- o) Shikimic acid pathway lead to synthesis of ....., ..... and ..... amino acids.

#### SECTION-B

- 2. Write a detailed note on the chemical constituents (with structures) of tea.
- 3. How different compounds get separated on a TLC plate? How TLC is different from HPTLC?
- 4. Discuss the role of medicinal plants in national economy.
- 5. Give an elaborated note on opium.
- 6. How HPLC helps in evaluation of crude drugs? Explain with suitable examples.

#### SECTION-C

- 7. Write an elaborated note on plant sweeteners.
- 8. Discuss the chemical constituents (with structures) and uses of the following :
  - a) Ergot
  - b) Withania
- 9. Give source, method of preparation, characters and uses of papain.
- 10. Discuss about Aceate-Mevalonate Pathway. Also draw the complete pathway.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**