

**Total No. of Pages : 02**

**Total No. of Questions : 10**

**B.Pharma (2011 to 2016) (Sem.-5)**

**PHARMACOGNOSY-IV**

**Subject Code : BPHM-504**

**Paper ID : [D1163]**

**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 :**

- Draw structure of ergotamine and scopolamine.
- Give examples of two alkaloids for which L-tyrosine acts as a precursor.
- Give one example each of a steroidal and glycoalkaloid containing plant with complete biological source.
- Brucine and strychnine are present in which portion of nux-vomica seeds?
- What are quassinoids? Give one example.
- Explain the principle of droplet counter current chromatography.
- Give biological source, important chemical constituent and important uses of coca.
- Give chemical composition of Mayer's and Dragendorff's reagents.
- Give a chemical test for emetine.
- Write chemical constituents of areca and draw structure of arecoline.

- k) Arrange the following techniques in decreasing order of the particle size of their stationary phase: CC, GC, HPLC, HPTLC
- l) Give complete biological source and important uses of Indian ginseng.
- m) \_\_\_\_\_ & \_\_\_\_\_ are formed from the coumaryl-s-coA.
- n) Give two examples of plant bitters with their complete biological source,
- o) Discuss important uses of pepsin enzyme.

### SECTION-B

- 2 Give complete biological source, important chemical constituents (with structures) and uses of catharanthus and datura.
- 3 Give biological source, preparation, identification test and uses of papain.
- 4 Explain the role of chromatography in the field of herbal drug evaluation.
- 5 Write complete source, important chemical constituents (with structures) and uses of cinchona and rauwolfia.
- 6 Give complete biological source, chemical constituents, uses, identification test and adulterants of ergot and kurchi.

### SECTION-C

- 7 Give a detailed account on plant sweeteners.
- 8 Explain the complete biosynthetic pathway for quinoline alkaloids.
- 9 Write the complete pharmacognosy of opium.
- 10 Give a detailed account (principle, stationary phases, instrumentation) on HPTLC and HPLC. Also enlist their differences.