

Please check whether you have got the right question paper.

- N.B:
1. All questions are compulsory.
  2. Draw appropriate structure of phytochemicals wherever applicable.

- Q.1** 1) Answer the following. **20**
- i) Give physicochemical principles for extraction of cinchona alkaloids.
  - ii) Give sources and uses of any two colourants from natural origin.
  - iii) Name any two pharmacopoeias giving herbal monographs only.
  - iv) Give sources of any two naturally occurring sweeteners.
  - v) Give any two parameters for standardization of herbal drugs.
  - vi) Give any two cellulose derivatives and their applications.
  - vii) Give sources and uses of artemisinin.
  - viii) Give uses of Lecithins.
  - ix) Name any two hepatoprotectives and their sources.
  - x) Give sources, structure and uses of Rutin.
- Q.2**
- a) Give account of chemotaxonomical classification of herbal drugs & its significance. **04**
  - b) Give large scale extraction of caffeine. **04**
  - c) Give an account of Glucomannans with respect to sources and applications. **03**
- Q.3**
- a) Give applications of immunoglobulins from plants in diagnosis and therapy with suitable examples. **04**
  - b) Give an account of any two anti-hyperglycemics of natural origin. **04**
  - c) Give physicochemical principles and method of extraction of Piperine. **03**
- Q.4**
- a) Give an account of activity guided fractionation with any one suitable example. **04**
  - b) Give an account of any two immunomodulators from natural origin. **04**
  - c) Give large scale extraction of Lemon oil. **03**
- Q.5**
- a) Explain 'taxane' as 'lead' molecule in drug discovery and drug development. **04**
  - b) Give an account of alginates as excipients in NDDS development. **04**
  - c) Discuss monograph of any one herbal drug with its salient features. **03**
- Q.6**
- a) Give large scale extraction of opium alkaloids. **04**
  - b) Give an account of Diosgenin. **04**
  - c) Give an account of collection of herbs for "research". **03**
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