

[Time: Three Hours]

[ Marks: 70]

Please check whether you have got the right question paper.

- N.B:
1. All questions are compulsory.
  2. Draw chemical structures & diagrams wherever necessary.

- Q.1 Answer the following: 15
1. Name the precursor molecule for the biosynthesis of quinine.
  2. Give biological source and use of Hydrocarpus oil.
  3. Name a nutraceutical and its probable active constituent, used as antidiabetic.
  4. Name and draw structure of active constituent present in wildcherry.
  5. Give Biological source of a drug that answer Vitali-Morin's test positive.
  6. Write the principle of a confirmatory test for condensed tannins.
  7. What are the active constituents and demerits of pyrethrum as a pesticide?
  8. Name the chemical test and its observation used for identification of Sesame oil.
  9. Give biological source and active constituents of pomegranate peel.
  10. Give composition and properties of Allium species.
  11. Write the active constituents and uses of Plumbago.
  12. Cascara bark is stored for a year before use. Justify
  13. Name and draw any two differentiating diagnostic microscopic characters between Vasaka and Senna.
  14. Give Biological source and uses of Hydrocotyle.
  15. Give Biological source and uses of an alkaloidal amine
- Q.2 i. Give a detailed account of biological source, preparation and chemistry of Castor oil. 04  
 ii. Discuss black catechu with respect to chemistry, preparation and applications. 04  
 iii. Outline biosynthetic pathway of colchicine. 03
- Q.3 i. Give detailed pharmacognostic scheme of Senna. 04  
 ii. Write a note on Bitter almond and Brassica. 04  
 iii. Discuss Tobacco as a natural pesticides. 03
- Q.4 i. Give detailed account of Ergot. 04  
 ii. Write a short note on Olive oil and Rice Bran oil. 04  
 iii. Give an account of Ginseng & Gingko biloba as nutraceuticals. 03
- Q.5 i. Discuss Aloes with respect to chemistry, preparation & uses. 04  
 ii. Give a detailed account of Opium 04  
 iii. Write biological source, chemical constituents & uses of Harda & Behra. 03
- Q.6 i. Give an account of Spermaceti and Beeswax 04  
 ii. Discuss pharmacognostic scheme of Vasaka. 04  
 iii. Write a short note on polyacetylenes. 03