

# Rajiv Gandhi University of Health Sciences, Karnataka

## IV Year B.Pharm Degree Examination – Mar 2013

**Time: Three Hours****Max. Marks: 80 Marks**

### **INDUSTRIAL PHARMACOGNOSY (Revised Scheme - 2) Q.P. CODE: 1970**

Your answers should be specific to the questions asked  
Draw neat labeled diagrams wherever necessary

**LONG ESSAYS (Answer any Two)****2 x 10 = 20 Marks**

1. Explain the methods for isolation, identification and estimation of citrus bioflavonoids and withanolides.
2. Explain mutation and hybridization methods and their importance in improving the quality of medicinal plants.
3. What are herbal formulations? Explain different methods useful in the evaluation of herbal formulations.

**SHORT ESSAYS (Answer any Eight)****8 x 5 = 40 Marks**

4. What are secondary metabolites? How plant tissue culture has helped to obtain secondary metabolites?
5. What is standardization? Explain the standardization method for vasaka leaf.
6. Give the sources, method of preparations, chemical natures and uses of papain.
7. Describe Ayurveda, and Siddha medicine system.
8. Explain the role of amla and henna in hair dyes.
9. Give the scope of herbal-based industries in India.
10. Describe patenting of natural products.
11. Give general methods for isolation and purification of enzymes.
12. Explain the isolation and estimation methods for ephedrine.
13. How will you standardize extract containing punarnava?

**SHORT ANSWERS****10 x 2 = 20 Marks**

14. Write the structure of quinine.
15. Give the source, chemical constituent and uses of hibiscus.
16. What is polyploidy?
17. Give the source, chemical constituent and uses of kantakari.
18. What is electroporation?
19. Give the source and uses of gymnemic acid.
20. Give the method of preparation of ghutika.
21. Give the differences between HPTLC & TLC.
22. What is haploid culture?
23. Give the source, chemical constituent and uses of rasna.

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