

**Rajiv Gandhi University of Health Sciences, Karnataka**  
**III Year B.Pharm Degree Examination – Sep 2012**

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

**PHARMACOGNOSY & PHYTOCHEMISTRY**  
**(Revised Scheme - 2)**

**Q.P. CODE: 1963**

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. State the biosynthesis of shikimic acid and isoprenoid pathways
2. Highlight the role chromatographic techniques in the isolation of natural products
3. Write in detail about Cardiac glycosides

**SHORT ESSAYS (Answer any Eight)**

**8 x 5 = 40 Marks**

4. Write a note on tropane alkaloids
5. Distinguish between Sumatra benzoin and Siam benzoin
6. Ash value and its determination
7. Classify tannins, giving properties of each class with examples
8. Compare the diagnostic characters of cinchona and cinnamon powder
9. Brief account on extraction of volatile oil
10. Source, active constituents and uses of Aloes and Licorice
11. Biosynthesis of opium alkaloids
12. Write a note on isolation and purification of Natural Products
13. Estimation of Alkaloids

**SHORT ANSWERS**

**10 x 2 = 20 Marks**

14. Mention the uses of Aconite
15. Define primary and secondary metabolites
16. Explain autoradiography
17. State the importance of chemical evaluation
18. Mention few anticancer principles from marine products
19. Name the adulterants and substitutes of Nux vomica
20. What are bitters?
21. Chemical constituents and uses of Kurchi
22. Name the adulterants and substitutes of Rauwolfia
23. Source and uses of Nutgalls