

Total number of printed pages – 4 **B. Pharm**
PH. 6.5

Sixth Semester Examination – 2008

PHYTOCHEMISTRY

Full Marks – 70

Time : 3 Hours

*Answer Question No. 1 which is compulsory
and any **five** from the rest.*

*The figures in the right-hand margin
indicate marks.*



1. Answer the following questions in brief :
2 × 10
- (a) Write down the different chemical tests for cardiac glycosides and its therapeutic uses.
- (b) How the thin layer chromatography is helpful in the analysis of plant products ?

- (c) Write down the stereoisomerism of citral.
- (d) Write down the different qualitative phytochemical tests for flavonoids.
- (e) Applications of I.R. and N.M.R. in the structural elucidation of phytoconstituents.
- (f) Mention the different visualising agents and qualitative analysis done by paper chromatography.
- (g) What is special isoprene rule ? Explain with examples.
- (h) What is Dier's Alder reaction and how it is helpful for structural elucidation of terpenoids ?
- (i) Differentiate the flavonoid compounds by giving structures with suitable examples.
- (j) What are the different degradation methods use in alkaloid's structural elucidation and how it is helpful ?

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Contd.

2. What are the different pharmacological properties of flavonoid compounds ? Write down the chemistry of quercitrin glycoside.

2+8

3. Classify terpenes with examples. Discuss the structural elucidation of camphor.

2+8

4. Write down the general methods of extraction, isolation and purification of natural products.

10

5. Describe the chemistry and therapeutic activity of streptomycin.

10

6. Write down the methods of extraction and isolation of alkaloid. Give structural elucidation of ephedrine.

4+6

7. Classify the Vitamins with examples. Write down the chemistry of Vitamin A.

2+8

8. Differentiate cardenolides and bufadienolides. Write down the source, pharmacological properties and chemistry of digoxin.

2+3+5

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