

**VINAYAKA MISSION'S RESEARCH FOUNDATION
(DEEMED TO BE UNIVERSITY), SALEM**

**B.PHARM. DEGREE EXAMINATION – JANUARY 2020
Fifth Semester**

PATHOPHYSIOLOGY

Time : Three hours

Maximum: 75 marks

I. Write essays on any **TWO** questions: (2 x 10 = 20)

1. What are glycosides? Discuss about its composition and classification and explain about one in detail.
2. Briefly explain various metabolic pathways in higher plants and shikimic acid pathway in detail.
3. Write in detail industrial production and application of sennoside.

II. Write short answers on any **SEVEN** questions: (7 x 5 = 35)

4. Isolation and identification of caffeine.
5. Spectroscopy as a tool for identification of phytochemicals.
6. Note on clove.
7. Chemical tests for alkaloids.
8. Podophyllotoxin resin.
9. Write on terpenoids with menthol as example.
10. Vincristine and vinblastine.
11. Isolation of atropine.
12. Use of HPTLC in identification and quantification of phytoconstituents.

III. Write short notes on : (10 x 2 = 20)

13. Radioactive isotopes used in biogenetic studies.
14. Ginger resins?
15. Pharmaceutical application of quinine.
16. Source, constituents and uses of opium.
17. Cinnamon- biosources and commercial application?
18. Flavanoids.
19. Therapeutic uses of senna.
20. Rutin – its source and use.
21. Chemical test for a cardiac glycoside.
22. Electrophoresis for isolation.