



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – PLANT BIOLOGY AND PLANT BIOTECH.

FIFTH SEMESTER – NOVEMBER 2014

PB 5411 - PHYTOCHEMICALS

Date : 10/11/2014
Time : 09:00-12:00

Dept. No.

Max. : 100 Marks

PART A

Answer the following, each within about 50 words only:

(10 x 2 = 20)

1. What are phytochemicals?
2. Write short notes on galanicals.
3. Mention the major subgroups of flavonoids.
4. Draw the structure of alpha form of glycoside.
5. Give the structure of anthocyanin.
6. What is coumarin?
7. What are xanthophylls?
8. Differentiate secretions vs excretions.
9. What are tetraterpenes?
10. Name the anticancer drugs from *Vinca rosea*.

PART B

Answer the following, each answer within 500 words; draw diagrams wherever necessary:

(5 x 7 = 35)

11. (a) Give a brief account on the history of phytochemicals.
Or
(b) Write in detail the extraction procedure for phytochemicals.
12. (a). Describe the structure, sources and isolation of flavonoids.
Or
(b) Enumerate the classification glycosides.
13. (a) Discuss the sources and therapeutic applications of anthocyanin.
Or
(b) Write an essay on phototoxicity of coumarins.
14. (a) Give an account on volatile oils.
Or
(b) Give a brief overview on lignins.
15. (a) What are carotenes? Give the various classes with examples.
Or
(b) Give an account on the classification of alkaloids.

PART C

Answer any three of the following, each within 1200 words. Draw diagrams and flow charts wherever necessary: *(3 x 15 = 45)*

16. Give a detailed account on any two characterization procedures for phytochemicals.
17. Describe classification, biogenesis and extraction procedure for flavonoids.
18. Give a detailed account on the classification and biosynthesis of coumarins.
19. Write an essay on saponins, their sources, classification and properties.
20. Discuss in detail on the sources, distribution, nomenclature, structure and properties of alkaloids.
