



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

FIFTH SEMESTER – NOVEMBER 2015

PB 5411 - PHYTOCHEMICALS

Date : 13/11/2015
Time : 09:00-12:00

Dept. No.

Max. : 100 Marks

Part A

Answer the following, each within 50 words only

(10 x 2 = 20 marks)

1. Mention the best known Egyptian pharmaceutical record with the year.
2. What is the contribution of Eli Lilly to the field of medicine?
3. Define Glycosides.
4. Who discovered the flavonoid, quercetin?
5. Define anthocyanin?
6. Mention any two uses of coumarin.
7. Write notes on neolignans.
8. What is meant by the term 'enfleurage'.
9. List any four properties of xanthophylls.
10. Mention any 2 tests for alkaloids.

PART B

Answer the following, each within 500 words only. Draw diagrams and flowcharts wherever necessary

(5 x 7 = 35 marks)

11. (a) Enumerate the classification of Natural products.
(or)
(b) Give a list of sources of natural products.
12. (a) Write the sources of flavonoids.
(or)
(b) Write the uses of cardiac and flavonoidal glycosides and list different tests for their identification.
13. (a) Discuss the phototoxic effects of coumarins.
(or)
(b) Write the pathways during biosynthesis of anthocyanin.
14. (a) Give a brief account on terpenes.
(or)
(b) Write short notes on volatile oils.
15. (a) List the classification and therapeutic values of carotenoids.
(or)
(b) What are alkaloids? Enumerate the role of any 5 alkaloids.

PART C

Answer any three of the following, each within 1200 words only. Draw diagrams and flowcharts wherever necessary. (3 x 15 = 45 marks)

16. Give a brief account on any three chromatographic techniques along with its merits.

17. Give an account on classification, isolation and properties of glycosides.

18. Distinguish between Furanocoumarins and pyranocoumarins.

19. Write in detail on saponins.

20. Discuss the nomenclature, classification and distribution of alkaloids.
