



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – PLAN BIOLOGY & ADV. ZOOLOGY

THIRD SEMESTER – APRIL 2014

CH 3204 – CHEMISTRY FOR BIOLOGISTS – II

Date : 10/04/2014

Dept. No.

Max. : 100 Marks

Time : 09:00-12:00

Part-A

Answer *all* the questions. Each carries *two* marks.

1. What are Zwitter ions? Give an example
2. Name any one enzyme and mention its specific action.
3. How is quality of oil related with hydrolytic rancidity?
4. Mention any two functions of plasma lipoproteins.
5. Define saponification number of oil.
6. Write the names and structures of pyrimidine bases found in nucleic acids.
7. How will you convert glucose into fructose?
8. Name the products formed by the hydrolysis of sucrose?
9. What are flavones? Cite an example.
10. Mention the NPK value of a fertilizer?

Part-B

Answer any *eight* questions. Each carries *five* marks.

11. How is *N*-terminal sequence of amino acid determined by Edman's method?
12. Discuss any two types of enzyme inhibition with examples.
13. What are proteins? Briefly explain denaturation of proteins.
14. Write notes on waxes.
15. What are the different classes of steroid hormones? Mention their functions.
16. List the applications and risks of genetic engineering.
17. Give an account of transcription of DNA.
18. Bring out the differences between reducing and nonreducing sugars.
19. Explain the chemical processes involved in photosynthesis.
20. Discuss the role of macro and micro nutrients in the soil.
21. What are alkaloids? How are they classified?
22. Write a brief note on the types of soil.

Part-C

Answer any *four* questions. Each carries *ten* marks.

23. Describe the mechanism of an enzyme catalyzed reaction.
24. What are lipids? How are they classified? Give the functions of lipids.
25. Describe the types of RNA and their functions.
26. Explain the process of conversion of glucose to pyruvic acid.
27. What are terpenes? How are they classified? How are terpenes extracted?
28. What are herbicides? Give the chemical name and structure of 2,4-D and 2,4,5-T.
How are they synthesized? (2+3+5)
