



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – ADVANCED ZOOLOGY AND PLANT BIOLOGY

THIRD SEMESTER – APRIL 2018

CH 3204- CHEMISTRY FOR BIOLOGISTS - II

Date: 04-05-2018
Time: 01:00-04:00

Dept. No.

Max. : 100 Marks

Part-A

Answer ALL questions.

(10 x 2= 20)

1. What is a zwitterion? Give an example.
2. What are denatured proteins?
3. What are transferases?
4. List out the differences between oils and fats.
5. What are steroids? Give an example.
6. Draw the structure of adenine.
7. What is mutation?
8. Give any four functions of carbohydrates.
9. What is isoprene rule?
10. How is Bordeaux mixture prepared? Mention its uses.

Part-B

Answer any EIGHT questions.

(8 x 5= 40)

11. How is N-terminal sequence of a polypeptide determined?
12. Give in detail the classification of enzymes.
13. Mention the theory of enzyme catalysis and explain.
14. Write a short note on the following: a) rancidity b) saponification
15. How are lipids classified? Mention their characteristics.
16. What are phospholipids? Briefly explain the functions of lecithin.
17. What is meant by the replication of DNA?
18. Discuss the applications and promises of genetic engineering?
19. What are reducing sugars? How are they differentiated from non-reducing sugars?
20. What are alkaloids? Give its classification and important properties.
21. Describe the Watson-Crick's model of DNA.
22. Write a short note on fertilizers.

Part-B

Answer any four questions.

(4 x 10=40)

- 23a. What is a peptide bond?
- b. Discuss the primary and secondary structure of protein.

(2+8)

24. Bring out the differences between DNA and RNA.

25a. What are hormones ?

b. How is androgens different from estrogens? (3+7)

26a. What is transcription?

b Write in detail the different types of RNA and its functions. (3+7)

27a. Defineterpenoids.

b. Explain the extraction of terpenoids. (2+8)

28a. Mention the alkaloid present in tobacco. How is it extracted?

b. Describe the isolation and importance of flavones. (5+5)
