E – 3364

Reg. No. : ....

Name : ....

Fourth Semester B.Sc. Degree Examination, July 2018
First Degree Programme Under CBCSS
Complementary Course for Zoology
CH 1431.4 : ORGANIC AND BIOPHYSICAL CHEMISTRY
(2013 Admission Onwards)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **all** questions. **Each** question carries **one** mark.

1. Give the structure of alanine.

2. What is Michaelis theory ?

3. Which are the bases present in RNA ?

4. What is a nucleoprotein ?

5. Name two synthetic polymers.

6. Give the structure of geraniol.

7. What is SBR ?

8. What are waxes ?

9. Give two examples for addition polymers.

10. What are essential oils ?

(10×1=10 Marks)

SECTION – B

Answer **any 8** questions. **Each** carries **2** marks.

11. What is meant by reverse osmosis ?

12. Distinguish between thermoplastic and thermosetting plastics.

13. What is isoprene rule ?

14. What is saponification value ?

15. What are co-enzymes ?

P.T.O.

16. Write a short note on ultramicroscope.

17. What is reverse osmosis ?

18. What is Hardy Schultz rule ?

19. Write a short note on protective colloids.

20. What are the factors affecting column efficiency ?

21. What is zeta potential ? Explain its significance.

22. How will you determine iodine value ?   (8×2=16 Marks)

SECTION – C

Answer **any 6** questions. **Each** carries **4** marks.

23. Give the synthesis of any two amino acids.

24. Give any two tests for proteins.

25. Explain the theory of enzyme catalysis.

26. Write a short note on peptide synthesis.

27. Explain the method of preparation of colloids.

28. Write a short note on vulcanisation.

29. Discuss cleansing action of detergents.

30. Write a short note on terpenes.

31. How are the essential oils extracted ?   (6×4=24 Marks)

SECTION – D

Answer **any 2** questions. **Each** carries **15** marks.

32. Discuss the theory and applications of TLC, paper and column chromatography.

33. Write a brief account of structure of proteins.

34. Discuss the classification of polymers.

35. Discuss briefly industrial applications of colloids.   (2×15=30 Marks)