

Reg. No. :

Name :

Fourth Semester B.Sc. Degree Examination, August 2022

Career Related First Degree Programme under CBCSS

Group 2(a) – Biochemistry and Industrial Microbiology

Core Course III

IM 1441 : PHYSIOLOGICAL ASPECTS OF BIOCHEMISTRY

(2014-2018 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **all** questions. Answer in **a** word to a maximum of **two** sentences. **Each** question carries **1** mark.

1. What are master glands?
2. What is the primary source of lung elasticity?
3. Define BMR.
4. Define active site.
5. Describe the components of plasma.
6. Define Km.
7. The increase in blood volume in the body is termed as.

P.T.O.

8. What is acetylcholine?
9. Define Chloride shift.
10. Define Hyperthyroidism.

(10 × 1 = 10 Marks)

SECTION – B

Answer any **eight** questions. Answer not to exceed one paragraph. **Each** question carries **2** marks.

11. Discuss on the types of blood cells.
12. Define absorption and digestion.
13. Write role on parathyroid hormone.
14. Give the composition of urine.
15. Define Isozymes. Name any two isozymes.
16. How LB plot is useful for analysis of enzyme kinetics.
17. Hormones as messenger – Discuss.
18. Write a short note on anemia.
19. Describe function of vitamins.
20. Explain the diagnosis of Hashimoto's disease.
21. What are enzymes? Why are they called biocatalyst?
22. Discuss the role of bile in lipid absorption.

(8 × 2 = 16 Marks)

SECTION – C

Answer any **six** questions. Answer should not exceed **120** words. **Each** question carries **4** marks.

23. Describe the mechanism of blood clotting.
24. Write short notes on:
 - (a) GH
 - (b) TSH
25. Different types of Reversible Inhibition.
26. Explain the effect of temperature on enzyme activity.
27. Elaborate on the structure of nephron.
28. Discuss physiological variations and regulation of blood volume.
29. Explain platelet plug formation.
30. Discuss in detail about the deficiency states of carbohydrates and proteins.
31. Differentiate between multifunctional enzyme and multienzyme complex.

(6 × 4 = 24 Marks)

SECTION – D

Answer any **two** questions. **Each** question carries **15** marks.

32. Write an essay on enzyme inhibition.
33. Derive MM equation and its significance.
34. Define coagulation. Describe in detail mechanism of blood clotting.
35. Describe in detail molecular mechanism of skeletal muscle contraction.

(2 × 15 = 30 Marks)