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T – 1656

Reg. No. :

Name :

Sixth Semester B.Sc. Degree Examination, April 2024

First Degree Programme under CBCSS

Chemistry

Elective Course

CH 1661.4 : BIOCHEMISTRY

(2020 Admission Onwards)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer all questions. Each question carries 1 mark.

1. Give two examples of globular proteins.
2. What is the calorific value of carbohydrates?
3. Name the enzymes involved in the digestion of proteins.
4. What is the pH of blood?
5. What is ultra centrifugation?
6. Which buffer system maintains pH of the blood?
7. What is the function of kidney in humans?
8. What is affinity in chromatography?

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9. Give two examples for plasma proteins.

10. What are the functions of bile salt?

(10 × 1 = 10 Marks)

SECTION – B

Answer any **eight** questions from the following. Each question carries **2** marks.

11. Explain the working of paper chromatography.

12. What are the components present in the blood?

13. What are the major constituents of urine?

14. What is emulsification?

15. Explain the term Renal Threshold.

16. Discuss the interrelationship between O₂ and CO₂ transport.

17. What are the importance of Blood-O₂ dissociation curve?

18. Explain Gel filtration technique.

19. What are the symptoms of abnormal haemoglobin?

20. What are coagulation factors?

21. What are the functions of lipoproteins?

22. Discuss the chemistry of kidney stone formation.

(8 × 2 = 16 Marks)

SECTION – C

Answer any **six** questions from the following. Each question carries **4** marks.

23. Write a short note on constituents of plasma.

24. Discuss the role of enzymes during digestion.

25. Write a short note on the physiological events taking place during respiration.

26. Explain the mechanism of body water balance in humans.

27. Write a short note on the Energy Value of food.

28. Discuss the various diseases associated with kidney.

29. Explain briefly on electrophoresis.

30. Briefly explain the digestion and absorption of carbohydrates.

31. Discuss the structure of Haemoglobin.

(6 × 4 = 24 Marks)

SECTION – D

Answer any **two** questions from the following. Each question carries **15** marks.

32. Explain the working of kidney.

33. What is BMR? What are its significances? How it is measured?

34. Briefly explain the transport of Oxygen and carbon dioxide in Blood.

35. Discuss the principle and applications of

(a) TLC

(b) GLC and

(c) gel-electrophoresis

(2 × 15 = 30 Marks)