

Reg. No. :

Name :

Sixth Semester B.Sc. Degree Examination, March 2021

First Degree Programme under CBCSS

Chemistry

Elective Course

CH 1661.4 : BIOCHEMISTRY

(2017 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer all questions. Each question carries 1 mark.

1. What is the function of lipoproteins?
2. What meant by hemophilia?
3. Define R_f value.
4. Mention any two adsorbents used in column chromatography.
5. Which is responsible for carrying almost all of the oxygen in blood?
6. What is meant by diuresis?
7. Name any two common organic constituents of urine.
8. What is the caloric requirement of an adult?
9. What are bilanes? Give one example.
10. What are fats?

(10 × 1 = 10 Marks)

SECTION – B

Short answer type

Answer **any eight** questions. Each question carries **2** marks.

11. What is abnormal haemoglobin?
12. Mention any two blood proteins.
13. Explain the principle of ultracentrifugation.
14. Write any two applications of TLC in biological fields.
15. Compare the relative rates of diffusion of oxygen and carbon dioxide.
16. Explain Bohr effect.
17. What is meant by renal threshold?
18. What are the common buffer systems functioning in blood?
19. How can we control the BMR of the body?
20. What are the functions of plasma proteins?
21. Name any two polysaccharides present in human body.
22. What are non protein nitrogens? Give two examples.

(8 × 2 = 16 Marks)

SECTION – C

Short essay

Answer **any six** questions. Each question carries **4** marks.

23. Explain the process coagulation of blood.
24. What is meant by electrophoresis? Mention its significance.

25. Explain the principle and applications of GLC.
26. What are the factors that shift the oxygen dissociation curve?
27. Write a note on the diseases associated with kidney function.
28. Discuss the regulation of water balance in the body.
29. Define calorific value of food. How it can be measured?
30. Discuss the digestion of proteins.
31. What are the constituents of blood?

(6 × 4 = 24 Marks)

SECTION – D

Long essay

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

32. Discuss the structure and functions of haemoglobin.
33. Discuss the principle, working and applications of
 - (a) Ion exchange chromatography
 - (b) Gel filtration chromatography
34. (a) Discuss the digestion and absorption of
 - (i) Carbohydrates
 - (ii) Fats
- (b) Write short note on the mechanism of oxygen transport.

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35. Discuss the composition and functions of

- (a) Bile acids
- (b) Bile pigments
- (c) Bile salts.

(2 × 15 = 30 Marks)

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