

C 4355

(Pages : 2)

Name.....

Reg. No.....

SECOND SEMESTER (CBCSS—UG) DEGREE EXAMINATION
APRIL 2021

Biochemistry

BCH 2C 02—BIOCHEMISTRY—II

Time : Two Hours

Maximum : 60 Marks

Section A*Answer all questions.**Each question carries 1 mark.*

1. In gel filtration chromatography molecules are separated on the basis of their :
 - (a) Charge.
 - (b) Solubility.
 - (c) Size.
 - (d) Affinity.
2. The _____ buffer plays a major role in maintaining the pH of blood.
 - (a) Phosphate.
 - (b) Bicarbonate.
 - (c) Citrate.
 - (d) Acetate.
3. The essential catalyst used in polyacrylamide gel electrophoresis (PAGE) is :
 - (a) Sodium dodecyl sulphate.
 - (b) Tetramethylethylenediamine.
 - (c) Ammonium persulfate.
 - (d) Bisacrylamide.
4. The wavelength range of visible light is :
 - (a) 700-800 nm.
 - (b) 400-700 nm
 - (c) 200-400 nm.
 - (d) 800-1000 nm.
5. Define Diffusion.
6. What is partition co-efficient ?
7. Write Henderson-Hasselbach equation.
8. Calculate the pH of 0.1N HCl.
9. Define colloid.

(9 × 1 = 9 marks)

Turn over

Section B

*Answer at least **six** questions.*

Each question carries 3 marks.

All questions can be attended.

Overall Ceiling 18.

10. What are Buffers ? Give two examples.
11. How coagulation of blood occurs ?
12. Discuss on the instrumentation of colorimeter.
13. List the applications of immunoelectrophoresis.
14. Name any *three* indicators commonly used to measure pH. Mention color and pH range.
15. What are the three different types of osmotic solutions ?
16. Write down the properties of colloids.
17. Give the differences between active transport and passive transport.

(6 × 3 = 18 marks)

Section C

*Answer at least **three** questions.*

Each question carries 7 marks.

All questions can be attended.

Overall Ceiling 21.

18. How amino acids are separated by thin layer chromatography.
19. Discuss on the titration curve of weak acid.
20. How acid-base balance is maintained in our body ?
21. Write down the principle and procedure of ion exchange chromatography.
22. Distinguish between lyophilic and lyophobic colloids.

(3 × 7 = 21 marks)

Section D

*Answer any **one** question.*

It carries 12 marks.

23. Explain the principle, procedure and application of gas liquid chromatography.
24. Describe SDS-PAGE.

(1 × 12 = 12 marks)