C 81763 (Pages : 2) Name.....

Reg. No.....

SECOND SEMESTER B.A./B.Sc. DEGREE EXAMINATION, APRIL 2020

(CUCBCSS—UG)

Biochemistry

BCH 2C 02—BIOCHEMISTRY–II

Time : Three Hours Maximum : 64 Marks

Section A

Answer **all** *the questions.*
Each question carries 1 *mark.*

1. Name the 4-epimer of glucose.
2. Give an example for a heteropolysaccharide.
3. Name the basic ring structure of cholesterol.
4. Name the monosaccharide components of lactose and the bond between them.
5. Lecithin is also known as ————.
6. Represent the zwitter ion form of glycine.
7. Name two acidic amino acids.
8. Name the heteropolysaccharide found in synovial fluid.
9. Write the name of two pyrimidine bases.
10. Name any two color reactions of proteins.

(10 × 1 = 10 marks)

Section B

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

11. Define acid number.
12. Represent the linear and Haworth structure of galactose.
13. What is mutarotation ?
14. State Chargaff's rule.
15. Represent the Haworth structure of sucrose.
16. Write the chemistry of Biuret reaction.

Turn over

17. What are transamination reactions ?
18. Define zwitter ion and isoelectric pH.
19. Represent the structure of valine.
20. How are sugar acids formed ?

(7 × 2 = 14 marks)

Section C

Answer any **four** *questions.*
Each question carries 5 *marks.*

21. Discuss about the structure of tRNA.
22. Write about the structure and functions of cellulose and chitin.
23. Draw the structure of Cephalin and Lecithin.
24. Write about any two types of protein precipitation reaction.
25. Explain Sanger's method of N-terminal amino acid determination.
26. Discuss about the physiological functions of phospholipids.

(4 × 5 = 20 marks)

Section D

Answer any **two** *questions.*
Each question carries 10 *marks.*

27. Give a detailed account of classification of amino acids.
28. Write an essay on the general reactions of carbohydrates with reference to glucose.
29. Discuss about the basic physiological functions of lipids and proteins.
30. Give an account of the general structure and properties of DNA.

(2 × 10 = 20 marks)