D 43243 (Pages : 2) Name..

Reg. No...............................

SECOND SEMESTER B.Sc. DEGREE EXAMINATION, MAY 2018

(CUCBCSS–UG)

Complementary Course

BCH 2C 02 – BIOCHEMISTRY – II

Time : Three Hours Maximum : 64 Marks

Section A

Answer **all** *questions.*

Each question carries 1 *mark.*

1. Naturally occurring proteins are usually polymers of _____.

2. The degree of unsaturation of lipid can be measured as _____.

3. The glycosidic linkage between two glucose molecules in isomaltose is _____.

4. How is cysteine differ from cysteine?

5. Name the amino acid bears a guanidine group in the side chain.

6. What is the function of adenosine triphosphate?

7. Dietary fats are transported as _____.

8. Name one non-reducing disaccharide.

9. The negative charge of DNA is due to _____.

10. Cellulose is a homopolysaccharide which is composed of _____ units.

$(10 \times 1 = 10 \text{ marks})$

Section B

Answer any **seven** *questions.*

Each question carries 2 *marks.*

11. Glucose and fructose will form identical osazones. Why?

12. Write any *two* colour reaction for the identification of sterols.

13. Write the amino acids in RGD sequence.

14. What is ninhydrin reaction?

15. Give any *two* reactions of unsaturated fatty acids.

16. What is meant by emulsification?

Turn over

17. What is isoelectric point?

18. Draw the structure of proline.

19. Give the structure of 2-deoxy β-D- ribofuranose.

20. Distinguish between DNA and RNA.

$(7 \times 2 = 14 \text{ marks})$

Section C

Answer any **four** *questions.*

Each question carries 5 marks.

21. Explain Transamination with a suitable example.

22. Describe the structural features of amylose and amylopectin.

23. Write a note on sphingolipids.

24. Write a short note on secondary structure of tRNA.

25. Write a short note on heteropolysacharides.

26. Draw the structure cholesterol and write briefly on its functions.

$(4 \times 5 = 20 \text{ marks})$

Section D

Answer any **two** *questions.*

Each question carries 10 marks.

27. Give an account of classification of carbohydrates. Write a note on structure and properties of any *two* disaccharides.

28. Describe the different levels of structural organization in proteins.

29. Describe the classification and basic functions of lipids and fatty acids.

30. Describe the features of Watson and Crick model of DNA.

$(2 \times 10 = 20 \text{ marks})$