C. ABDUL HAKEEM COLLEGE (AUTONOMOUS), MELVISHARAM - 632 509. SEMESTER EXAMINATIONS, NOVEMBER - 2018

B.Sc., CHEMISTRY SEMESTER III U15ACH302 — BIOCHEMISTRY — I (ALLIED)

Time: Three Hours Maximum: 60 Marks

SECTION - A (10 X 1 = 10 Marks)

Answer ALL Questions.

- 1. What are carbohydrates?
- 2. Draw the structure of starch.
- 3. What is a peptide bond?
- 4. What are proteins?
- 5. Mention the classification of fatty acids.
- 6. Give any two examples for essential fatty acids.
- Define nucleoside.
- 8. What is called RNA?
- Define Vitamin.
- 10. Mention any one biological function of Na and Ca.

SECTION - B (5 X 4 = 20 Marks)

Answer **ALL** Questions.

11. a) "Glucose and Fructose give the same osazone". Reason out.

<u>O</u>r

b) Discuss the structure of sucrose.

- 12. a) Write a note on the classification of proteins.
- (Or)
- b) Write a note on the properties of amino acids.
- 13. a) What are called bile acids? Mention the importance of it.

(Or

- b) List out the structure and properties of any two saturated fatty acids.
- a) Write a note on nucleotide and polynucleotide.

Or.

- b) List out the differences between DNA and RNA.
- 15. a) Write the sources and biological functions of vitamin A & C.

(Or

b) Mention the biological functions of P and Mg.

SECTION - C $(3 \times 10 = 30 \text{ Marks})$

- Answer ANY THREE Questions
- 16. Discuss the structure of cellulose.
- Write a note on the secondary structure of protein.
- 18. Discuss the structure of cholesterol.
- 19. Describe the double helical model of DNA and its biological functions.
- Write a brief outline of sources and biological functions of vitamins B, D and E.

R18631 R18631