

**VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM**  
**B.Sc(ALLIED HEALTH SCIENCES) DEGREE EXAMINATIONS - August 2019**

**First Semester**  
**BIOCHEMISTRY**

Three Hours

Maximum: 75 marks

**SECTION - A**

**I. Choose the Best Answer :**

**(10 x 1 = 10)**

- One of the following is not an aldose  
(a) Glucose (b) Galactose (c) Mannose (d) Fructose
- The following is a non-protein amino acid  
(a) Ornithine (b) Homocysteine (c) Histamine (d) All of them
- The reaction given by two or more peptide linkages is  
(a) Biuret test (b) Ninhydrin test (c) Xanthoproteic reaction (d) Pauley's test
- The number of double bonds present in arachidonic acid  
(a) 1 (b) 2 (c) 3 (d) 4
- The two final products in the E-oxidation of odd chain fatty acids are  
(a) Acetyl CoA and malonyl CoA (b) Acetyl CoA and acetyl CoA  
(c) Acetyl CoA and propionyl CoA (d) Acetyl CoA and succinyl CoA
- The nitrogenous base not present in DNA structure  
(a) Adenine (b) Guanine (c) Cytosine (d) Uracil
- An enzyme of purine metabolism associated with immunodeficiency disease  
(a) Adenosine deaminase (b) Xanthine oxidase (c) PRPP synthetase (d) HGPRT
- In the feedback regulation, the end product binds at  
(a) Active site (b) Allosteric site (c) E-S complex (d) None of these
- The coenzyme directly concerned with the synthesis of biogenic amines  
(a) TPP (b) NADP+ (c) Biotin (d) Pyridoxal phosphate
- The only route through which H<sup>+</sup> ions are eliminated from the body  
(a) Lungs (b) Stomach (c) Kidneys (d) None of them

**II. Write Short Answers on any FIVE of the following:**

**(5 x 5 = 25)**

- Write short notes on Benedict's test, glucometer
- Write short notes on Polysaccharides and glycosides
- Write short notes on plasma proteins types and function
- Write an account of essential fatty acids
- Write a account of types of RNA and importance

(p.t.o.)

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16. Write a short notes of transfer RNA and structure
17. Tocopherol

**III. Write Short Essays on any TWO of the following:**

**(2 x 10 = 20)**

18. Define polysaccharides and describe the structure of 3 homopolysaccharides
19. Describe the classification of proteins with suitable examples
20. Discuss the biochemical functions of vitamin C. Add a note on the therapeutic use of megadoses of this vitamin.
21. Classify acid-base disorders and discuss them with compensatory mechanisms

**IV. Write Essays on any ONE of the following:**

**(1 x 20 = 20)**

22. Give an account of the structural configuration of monosaccharides, with special reference to glucose
23. Describe the mechanism of enzyme action

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