

**Avinashilingam Institute for Home Science and higher Education for Women
(Deemed to be University) Coimbatore-641 043
Bachelor's Degree Examination-November 2018
V Semester**

**Class : III UG
Major : Zoology**

**Time:3 Hrs
Max.Marks :100**

15BZOC14-BIOCHEMISTRY

Part-A (10×1=10)

Choose the correct answer

1. In water hydrogen and oxygen atoms are held together by.
(a) Peptide bond (b) Ionic bond (c) Covalent bond (d) Co-ordinate bond
2. A weak acid and its salt are.
(a) Acid buffer (b) Basic buffer (c) Carbonate buffer (d) Bicarbonate buffer
3. Which among the following is a polysaccharide?
(a) Glucose (b) Sucrose (c) Maltose (d) Starch
4. Breakdown of glycogen is called.
(a) Glycogenesis (b) Glycogenolysis (c) Glycolysis (d) Glyconeogenesis
5. Pick out the derived protein among the following.
(a) Haemoglobin (b) Myoglobin (c) Serum albumin (d) Fibrin
6. During deamination an amino acid is converted into.
(a) Acetic acid (b) Pyruvic acid (c) Fumaric acid (d) Keto acid
7. An example for unsaturated fatty acid is.
(a) Oleic acid (b) acetic acid (c) Palmitic acid (d) Stearic acid
8. Transport triglycerides and cholesterol in the blood is with the help of
(a) Lipoproteins (b) steroids (c) palmitic acid (d) valeric acid
9. In active form of enzyme is.
(a) Anti-enzymes (b) Holo enzymes (c) Iso enzymes (d) Zymogen
10. Factor affect the enzyme action is.
(a) Temperature (b) PH (c) Substrate concentration (d) All

Part-B

(5×6=30)

Answer the following

Answer should not exceed 400 words or two pages

11. a. Write a brief account on chemical bonds.

(Or)

11. b. Comment on acidosis and alkalosis.

: 2 :

12. a. Classify carbohydrate with examples.
(Or)
12.b. Discuss glycogenesis with relevant flow chart.
13. a. Write down the properties of amino acids.
(Or)
13.b. Briefly explain transamination and deamination.
14. a. Depict the structure of fatty acids.
(Or)
14. b. Give an account on ketogenesis.
15. a. Examine the nomenclature of enzymes with an example.
(Or)
15.b. Give an account on enzyme inhibition.

Part-C

5×12=60

Answer the following

Answer should not exceed 800 words or 4 pages

16. a. Describe the concept of PH and acid base balance.
(Or)
16. b. Write a detailed account on phosphate and proteins buffers of blood.
17. a. Examine the functions of carbohydrate.
(Or)
17.b. Describe TCA cycle. Add a note on its energetics.
18. a. Write a detailed account on classification and functions of protein.
(Or)
18. b. Explain the structural organization of proteins.
19. a. Elucidate the structure of steroids.
(Or)
19.b. Illustrate the β -oxidation of valeric acid.
20. a. Give a detailed account on enzyme action.
(Or)
20. b. Write an elaborate account on factors affecting enzyme activity.
