S.No.M22445 Course Code: 27419104, 32519105, 30119105, 32219105, 32419105, 32319105, 32119105, 27719105, 32619105, 27819105, 32719105, 33119105, 30219105

VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM

B.Sc(ALLIED HEALTH SCIENCES) DEGREE EXAMINATIONS - February 2020

First Semester

GENERAL BIOCHEMISTRY

Three Hours Maximum: 70 marks

SECTION - A

I. Choose the Best Answer : (10 x 1 = 10)

1. The number of ATP produced when a molecule of acetyl CoA is oxidized through citric acid cycle
   (a) 12 (b) 24 (c) 38 (d) 15.
2. The amino acids are said to be ketogenic when the carbon skeleton is finally degraded to
   (a) Succinyl CoA (b) Fumarate (c) Acetyl CoA (d) Pyruvate.
3. One of the following is an amphipathic lipid
   (a) Phospholipids (b) Fatty acid (c) Bile salts (d) All of the above.
4. Name the enzyme associated with hyperuricemia
   (a) PRPP synthetase (b) HGPRT (c) Glucose 6-phosphatase (d) All of them.
5. Which one of the vitamin A functions as a steroid hormone
   (a) Retinal (b) Retinol (c) Provitamin A (d) E-Carotene.
6. Name the amino acid from which ammonia is derived in the renal tubular cells which is finally excreted as NH4+
   (a) Asparagine (b) Glutamine (c) Glutamate (d) Aspartate.
7. Polysaccharides are
   a. Polymers (b) Acids (c) Proteins (d) Oils
8. An amino acid that does not form an a helix is
   (a) Valine (b) Proline (c) Tyrosine (d) Tryptophan
9. Minimum dietary fibre is found in
   (a) Dried apricot (b) Peas (c) Bran (d) Cornflakes
10. Aspirin blocks the synthesis of
    (a) Prostaglandins only (b) Prostacyclins only (c) Thromboxanes only (d) All of these

II. Answer All Questions: (10 x 2 = 20)

11. Draw a structure of prokaryotic cell.
12. Write any two functions of polysaccharides.

(p.t.o)

13. Give a short note on Ag, Ab.
14. Draw a any two structure of amino acids.
15. Define triacylglycerols.
16. Hyperuricimea and normal range of serum uric acid.
17. Give a short note on mechanism of enzyme action.
18. Deficiency of vitamin -C.
19. Define respiratory quotient.
20. Define PH and normal blood PH.

III. Write Short Essays on any FIVE of the following: **(5 x 6 =** 3

21 Discuss the structure and functions of 3 biochemically important disaccharides.
22 Write the steps involved in glycolysis pathway and production of ATP.
23 Discuss about sterols cholesterol.
24 What are coenzymes? Write briefly on the role of coenzymes in enzyme action.
25. Write about Enzyme inhibition
26. Short note on GI hormones.
27. Write short note on hypothalamic hormones.

IV. Write Essays on any ONE of the following: **(1 x 10 = 10)**

28. Give an account of the structural configuration of monosaccharides, with special reference to glucose.
29. Write detailed account on types of RNA and its importance.
30. Classify vitamins and briefly discuss their functions and deficiency disorders.

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