

SEM	SET	PAPER CODE	TITLE OF THE PAPER
VI	2012	11UBO630504	BIOCHEMISTRY

SECTION – A**Answer all the questions:****20 x 1 = 20****Choose the correct answer:**

- Humans are unable to digest
 - denatured protein
 - Starch
 - Fat
 - Cellulose
- Which of the following is phospholipid
 - cholesterol
 - Lecithin
 - Sterol
 - Steroid
- The protein found in hairs and nails
 - Keratin
 - Immunoglobulins
 - Collagen
 - Haemoglobin
- Enzymes are _____.
 - Carbohydrates
 - RNA
 - Protein
 - Fat
- Continuous bleeding from an injured part of the body is due to deficiency of
 - Vitamin – B
 - Vitamin – K
 - Vitamin – E
 - Vitamin – A

Fill in the blanks:

6. Synthesis of glucose from non-carbohydrate precursors are called _____.
7. Hydrolysis of Triacylglycerols produces _____.
8. Amino acids are ampholytes because they can function as either a _____ or _____.
9. The term enzymes coined by _____.
10. Nyctalopia (Night Blindness) is caused by deficiency of _____.

State True or False:

11. Starch contains two types of glucose polymer, amylose and amylopectin.
12. Fatty acids are derivatives of Hydrocarbon.
13. Albumins are conjugated proteins insoluble in water.
14. Fat is hydrolysed by the enzyme known as amylase.
15. Vitamins A, D, E and K are fat-soluble.

Match the following:

- | | |
|----------------------------------|----------------------------|
| 16. Hydrolysis of lactose yields | - a) Papain |
| 17. Unsaturated fatty acid | - b) Amino acid |
| 18. Building blocks of proteins | - c) Oleic acid |
| 19. Tenderization of meat | - d) Folic acid |
| 20. B-Complex | - e) Galactose and Glucose |

SECTION – B

Answer all the questions:

5 x 4 = 20

21. a. Write the notes on properties of Monosaccharides.

OR

b. What is glycosidic linkage? Describe α and β glycosidic linkage formation in carbohydrates.

22. a. What are unsaturated fatty acids? Write the significance of unsaturated fatty acids.

OR

b. Write detailed note on Singer and Nicolson “fluid mosaic” membrane model.

23. a. Enumerate the tertiary structure of protein.

OR

b. Explain any four important properties of amino acids.

24. a. Write the notes on IUB classification of enzymes.

OR

b. What are the factors affecting enzyme action?

25. a. Explain the important role of ascorbic acid in human healthcare.

OR

b. What are the components of vitamin B complex? Mention the functions of vitamin B complex.

SECTION – C

Answer any FOUR questions:

4 x 15 = 60

26. Give a detailed account on chemical structure and important functions of Polysaccharide with suitable examples.
27. Write an essay on classification of lipids with appropriate examples. Discuss any five physical properties of lipids.
28. Classify the proteins based on shape, solubility and composition.
29. What are enzyme inhibitors? Describe the competitive and non-competitive enzymes inhibitors.
30. Give a detailed account on classification and vital functions of fat-soluble vitamins.
