

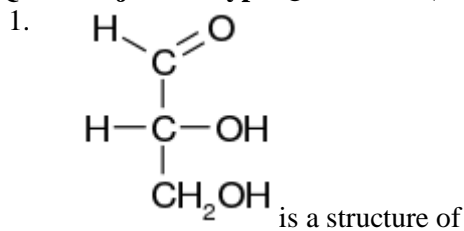
PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
B.Tech. Summer 2022-23 Examination

Semester: 4th
 Subject Code: 203111251
 Subject Name: Biochemistry

Date: 20/03/2023
 Time: 2:00 pm to 4:30 pm
 Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Objective Type Questions - (All are compulsory, Each Question carry one mark) (15)

- | | |
|-------------------|-------------|
| a) Glyceraldehyde | b) Glucose |
| c) Maltose | d) Fructose |
2. The degradative Processes are categorized under the heading of

a) Anabolism	b) Catabolism
c) Metabolism	d) None of the above
 3. An aromatic amino acid is

a) Lysine	b) Tyrosine
c) Taurine	d) Arginine
 4. Antidiuretic hormone is produced by

a) Anterior pituitary gland	b) Hypothalamus
c) Posterior pituitary gland	d) Parathyroid
 5. Which one of the following minerals is not essential for human body?

a) Phosphorus	b) Magnesium
c) Potassium	d) None of the above
 6. Glucose have four asymmetric carbons. (True/False)
 7. Lipids soluble in alcohol. (True/False)
 8. Helix is a type of tertiary structural protein (True/False)
 9. Define biomolecules.
 10. Enlist the nitrogenous base present in nucleotides.
 11. Write any one function of chloride in human body.
 12. Protein is polymer of _____.
 13. _____ is test for determine reducing sugar.
 14. Minerals are classified as _____.
 15. _____ amino acids are synthesis by human body.

Q.2 Answer the following questions. (Attempt any three) (15)

- A) Explain digestion and absorption of lipids.
- B) Write a short note on biochemistry of cancer.
- C) Which are the factors affect enzyme activity? Explain it in detail.
- D) Classify the amino acid on the basis of essentiality.

Q.3 (A) What are the functions of protein in human body? Draw and explain the levels of protein on the basis of structure? (07)

(B) Define activation energy. What is the role of activation energy in enzyme action? Explain with an example. (08)

OR

(B) Explain about the nutritional importance of carbohydrates, lipids & proteins. (08)

Q.4 (A) Write about the application of radioactive isotope. (07)

OR

(A) Explain digestion of carbohydrates & proteins. (07)

(B) Give the classification of vitamins on the basis of solubility. (08)

Write a short note on 1. Vitamin A 2. Vitamin C 3. Vitamin D