

**Dear students,**

**Assalamualaikum.**

**Please solve the following questions for ur upcoming card final 'Biophysics and biomolecules'. Submit ur home assignment as soon as possible after college resumes. Stay blessed.**

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1. Define enzyme and classify enzymes with example.
2. What is eicosanoids? Mention the important functions of prostaglandin.
3. Define pH.
4. Write short notes on: a. Isotopes b. Normal saline.
5. State Henderson-Hasselbalch equation. How will you deduce this equation?
6. Define and classify lipid. Mention the important properties of lipid.
7. Classify protein with example. What is denaturation of protein?
8. Write short notes on : a. Mutarotation b. Isozymes
9. Differentiate between colloid and crystalloid. Name some blood colloids and crystalloids.
10. Draw the structures of : a. L-glucose b. Lipoprotein.

Q 1. Define and classify carbohydrate. List the properties of Glucose.

Q 2. Define buffer and mention their uses. How does a buffer act?

Q 3. Write short notes on: i) Enzyme ii) Peptide bond.

Q 4. Differentiate between colloids and crystalloids. State the properties of colloids.

Q 5. Define and classify protein with example. Mention the important functions of protein.

Q 6. Write short notes on: i) Rancidity ii) Isotope.

Q 7. State and deduce Henderson Hasselbalch equation. Mention its importance.

Q 8. Classify enzymes with examples. What is  $K_m$  and  $Q_{10}$ .

Q 9. Write short notes on: i) Isomers of glucose ii) Invert sugar.

Q.1 Define and classify protein. List the properties of protein.

Q.2 Define and classify blood buffers. Write down the general mechanism of action of buffer with example.

Q.3 Define and classify enzyme with example. Write down the factors affecting enzyme activity with diagram.

Q. 4 Draw and label the structure of plasma lipoprotein. Give the classification of lipoprotein.

Q.5 Define and classify lipid. Mention the important properties of lipid.

Q.6 Write short notes on:

- a. Mutarotation.
- b. Co-enzymes.

Q1. Define standard solution with example.

Q2. Define colloid with example. Mention the important properties of colloids with significant biological and clinical importance if any.

Q3. Write in short about enzyme inhibition. Give few examples of utilization of enzyme inhibition in drug designing.

Q4. Classify buffer with example. Give the mechanism of buffer action.

Q7. Classify protein with example. What is denaturation of protein.

Q8. Write short notes on: a) Mutarotation    b) Isotopes.