



SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

AN AUTONOMOUS INSTITUTION

Accredited by NAAC – UGC with 'A' Grade

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

Department of Mechanical Engineering

19BY701 - BIOLOGY FOR ENGINEERS

UNIT -1 | INTRODUCTION TO LIFE

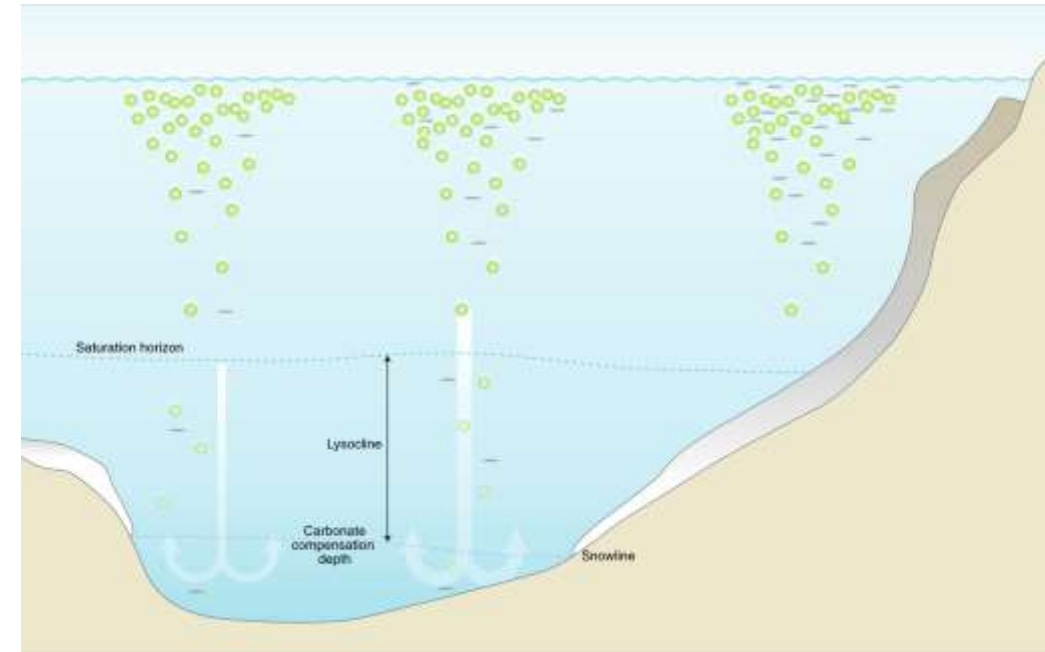
Prepared by

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Ap/Mech

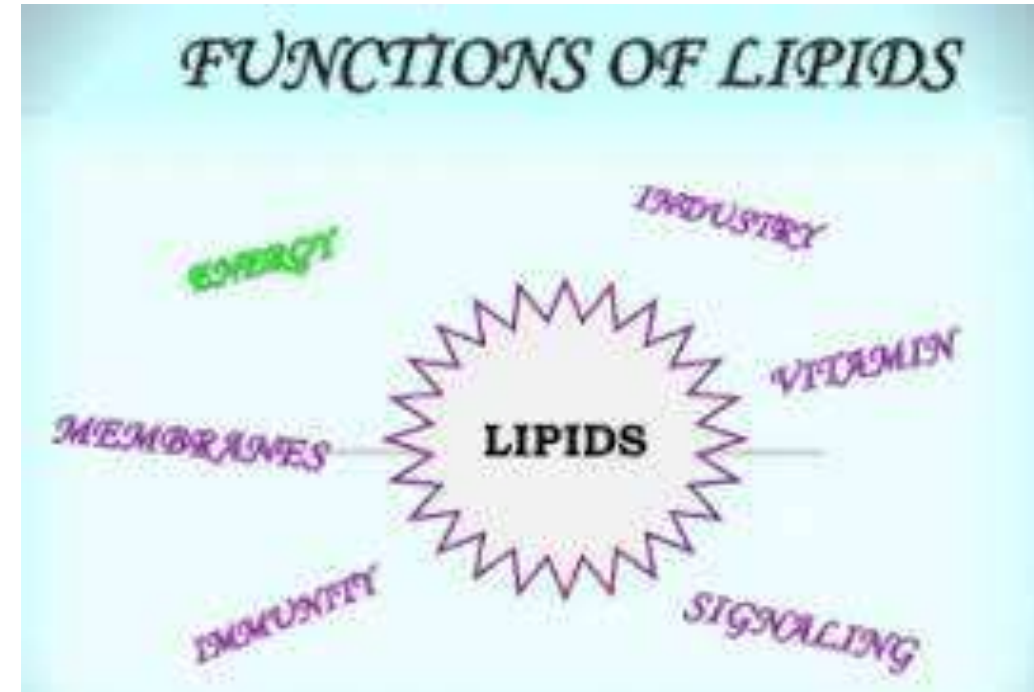
FUNCTION OF CARBONATES

- Carbonate as a ligand **stabilizes transition metal complexes in uncommon high oxidation states.**
- These high-valent complexes are intermediates in electrochemical water oxidation processes that are of importance in the development of new water splitting technologies.



FUNCTION OF LIPIDS

- The main biological functions of lipids include **storing energy**, as lipids may be broken down to yield large amounts of energy.
- Lipids also form the structural components of cell membranes, and form various messengers and signaling molecules within the body.



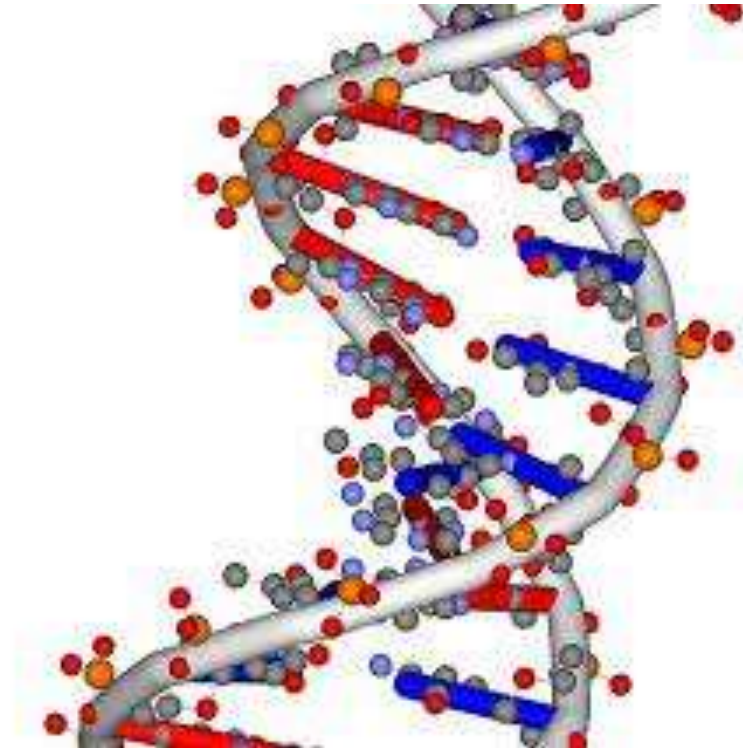
FUNCTION OF PROTEINS

- **Every cell in your body contains protein, so meeting your protein requirement is essential for your health.**
- Building Tissues and Muscles. Protein is necessary in building and repairing body tissues.
- Hormone Production.
- Enzymes.
- Immune Function.
- Energy.



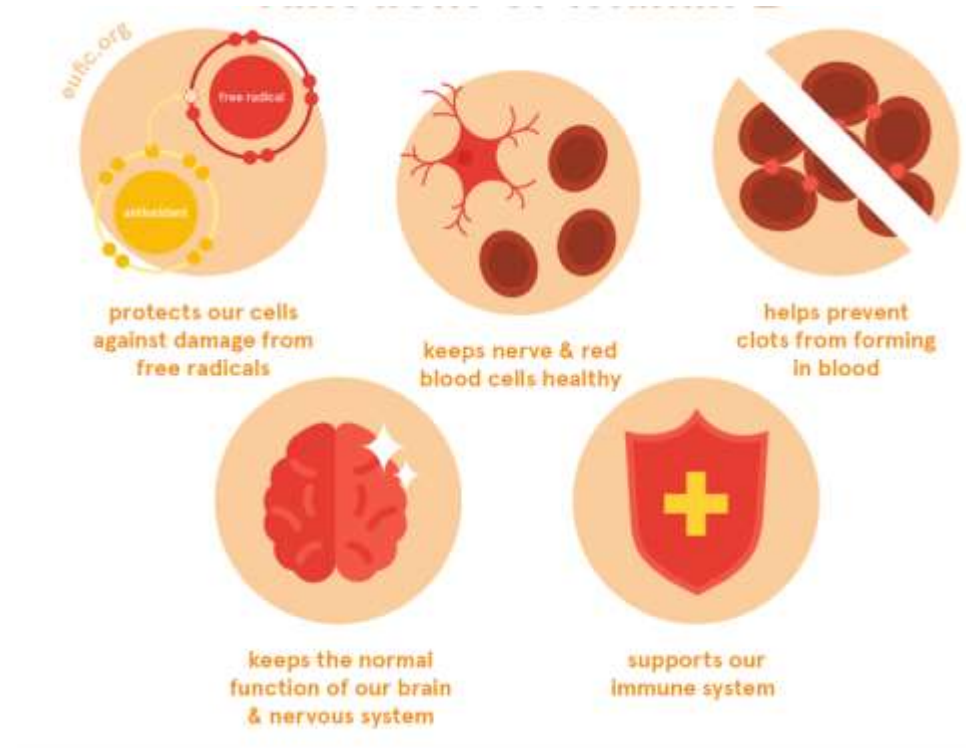
FUNCTION OF NUCLEIC ACID

- Nucleic acids, deoxyribonucleic acid (DNA) and ribonucleic acid (RNA), **carry genetic information which is read in cells to make the RNA and proteins by which living things function.**
- The well-known structure of the DNA double helix allows this information to be copied and passed on to the next generation.



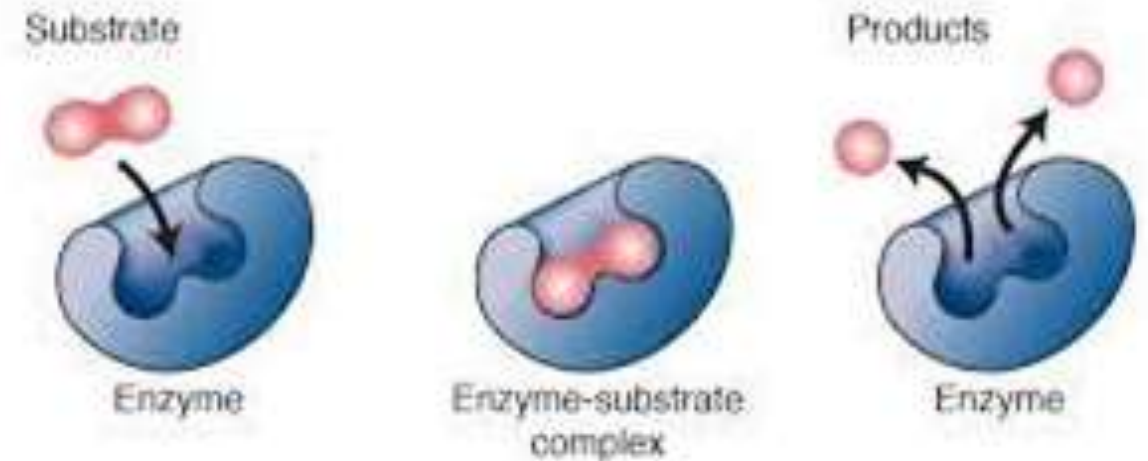
FUNCTION OF VITAMINS

- Vitamins are vital for good health, but needed in much smaller amounts than macro-nutrients, like carbs and fats.
- They're important for many daily bodily functions, such as **cell reproduction and growth, but most importantly for the processing of energy in cells.**



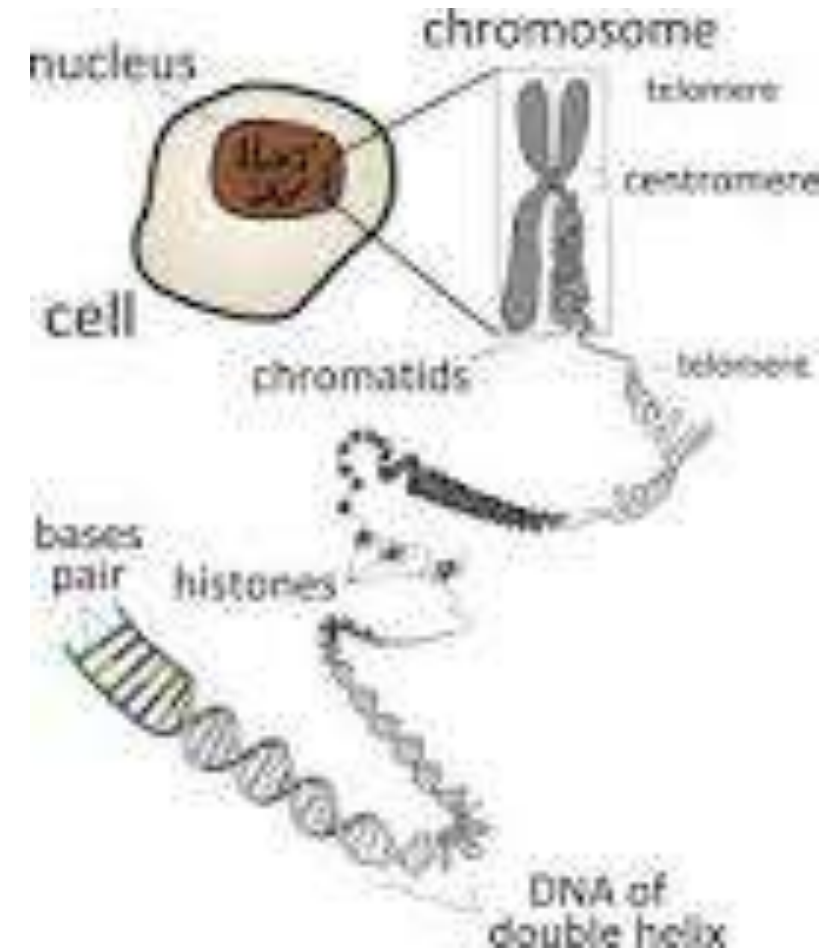
FUNCTION OF ENZYMES GENES

- An enzyme is a biological catalyst and is almost always a protein. It **speeds up the rate of a specific chemical reaction in the cell.**
- The enzyme is not destroyed during the reaction and is used over and over.



FUNCTION OF CHROMOSOMES

- The main function of chromosomes is to carry the **DNA** and transfer the genetic information from parents to offspring.
- Chromosomes play an important role during cell division. They protect the DNA from getting tangled and damaged.





ASSESSMENT

Match the Following

- | | |
|------------------------------|---|
| 1. FUNCTION OF CARBOHYDRATES | a. carry the DNA and transfer the genetic information |
| 2. FUNCTION OF LIPIDS | b. speeds up the rate of a specific chemical reaction |
| 3. FUNCTION OF PROTEINS | c. processing of energy in cells |
| 4. FUNCTION OF NUCLEIC ACID | d. carry genetic information |
| 5. FUNCTION OF VITAMINS | e. essential for your health |
| 6. FUNCTION OF ENZYMES GENES | f. storing energy |
| 7. FUNCTION OF CHROMOSOMES | g. stabilizes transition |