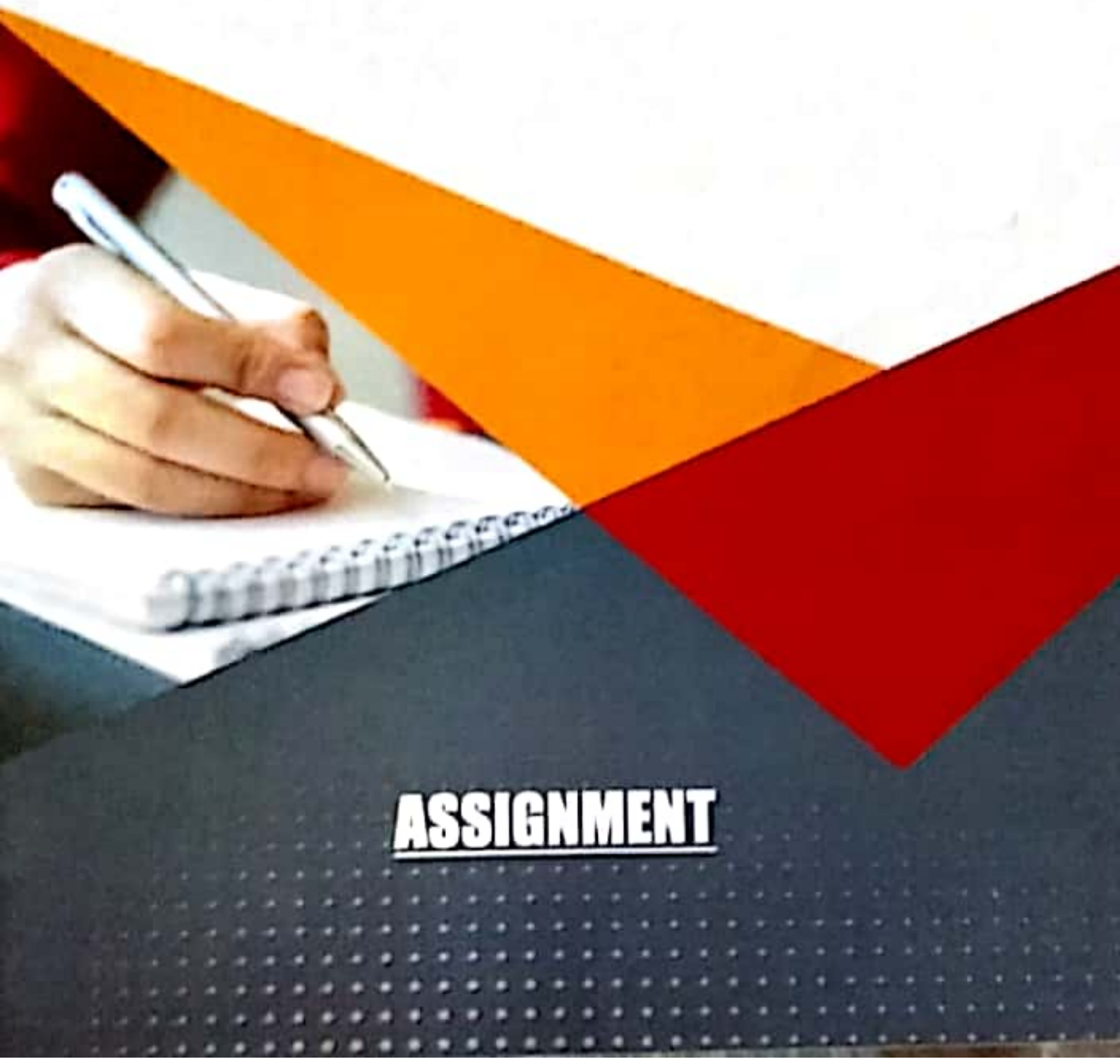
R.K.
GROUP OF COLLEGE

Behind Kalwar Police Station, Kalwar, Jaipur (Raj.)



ASSIGNMENT

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(Unit - I st)

What are enzymes? Explain the mechanism of action of enzymes.

(Unit - II nd)

7. Explain the mechanism of flotum transport.

(Unit - III rd)

Explain the mechanism of photophosphorylation in higher plants.

(Unit - IV th)

What is an exosome (hormone)? What is the difference in the structure of the plant exosome gibberellin and cytokinin?

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Any 2. molecules.

These enzymes are simple or complex protein

Structure of enzymes: On the basis of their chemical composition, enzymes are of the following two types: are

Simple enzymes: Enzymes that contain only one Those made of proteins are called simple enzymes. Thus, these are simply complexes of amino acids. Trisin, pepsin, lipase, etc.

11 conjugating enzymes Enzymes which have a protein moiety and a non-protein moiety are called conjugated enzymes.

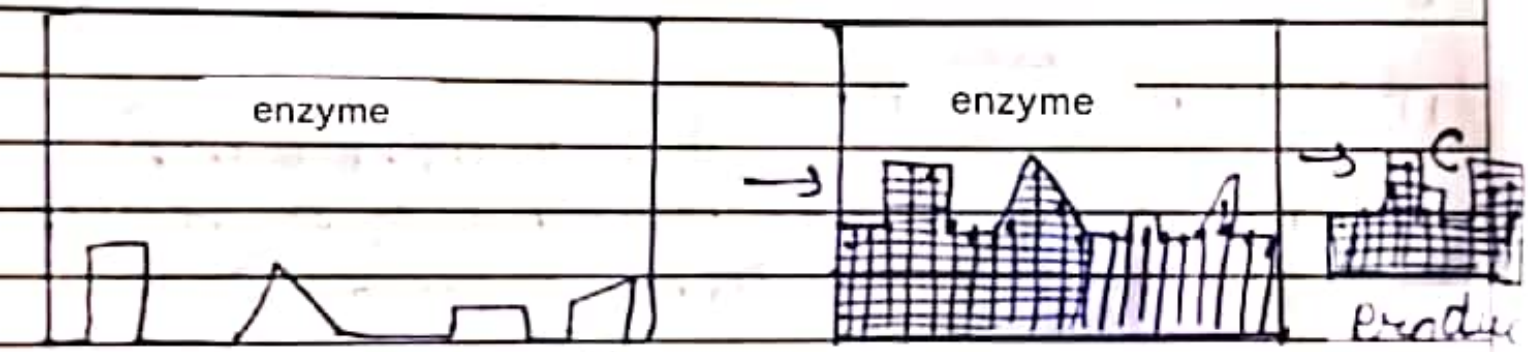
Method of Vikat Kiya: - The process of follows wicker work can be explained as

2. Radiation - formation of karyadhar complex: - Wicker first

The dipoles conjugate to form a temporary chemical compound called It is called the Vikar-Vidyadhar complex whereby the Vikar and Sahad are separated -

lamp holder + → wicker wicker-lamp holder
package-wicker + product

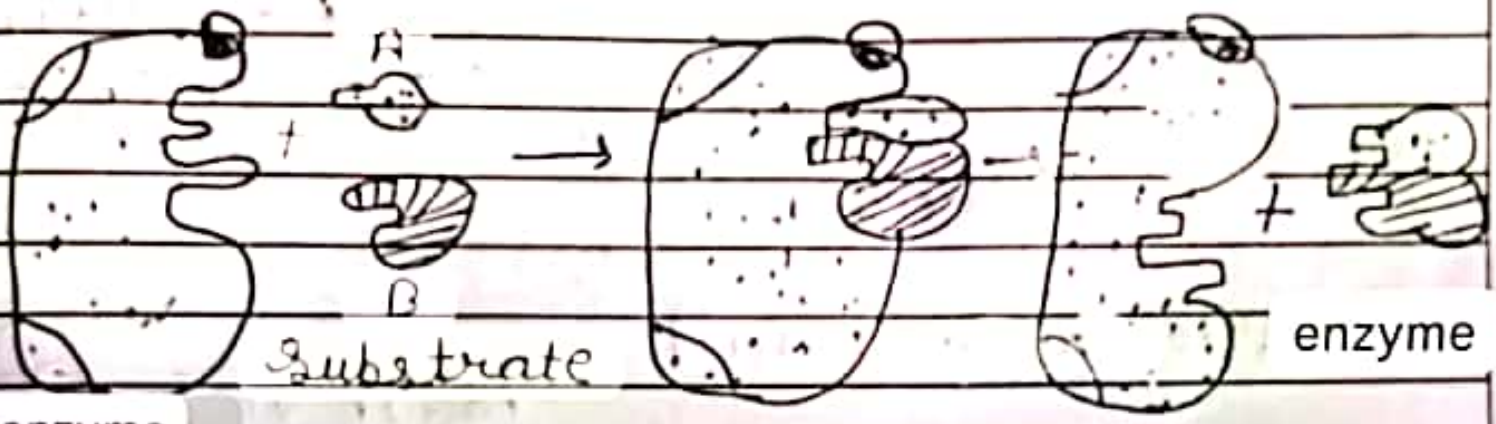
The wicker has a distinct groove to which the base is attached. This groove contains the permanent wicker. The mechanism of wicker formation can be explained through the following two principles:



dig - demonstration of the working of the seedbed and wicker

(i) Lock and Key Theory: -

Fisher formulated the concept of lock and key to describe the mechanism of locking. A particular lock can only be opened with a specific key.



Explain the process of formation of reaction an product between the catalyst and factors.

[iii) Induced adhesion theory: Koshland (1966)

He proposed the induced adhesion theory. According to this theory, the wick induces conformational changes in the wick. This induction causes the wick's amino acid residues to move to their correct positions or other groups to become configured.

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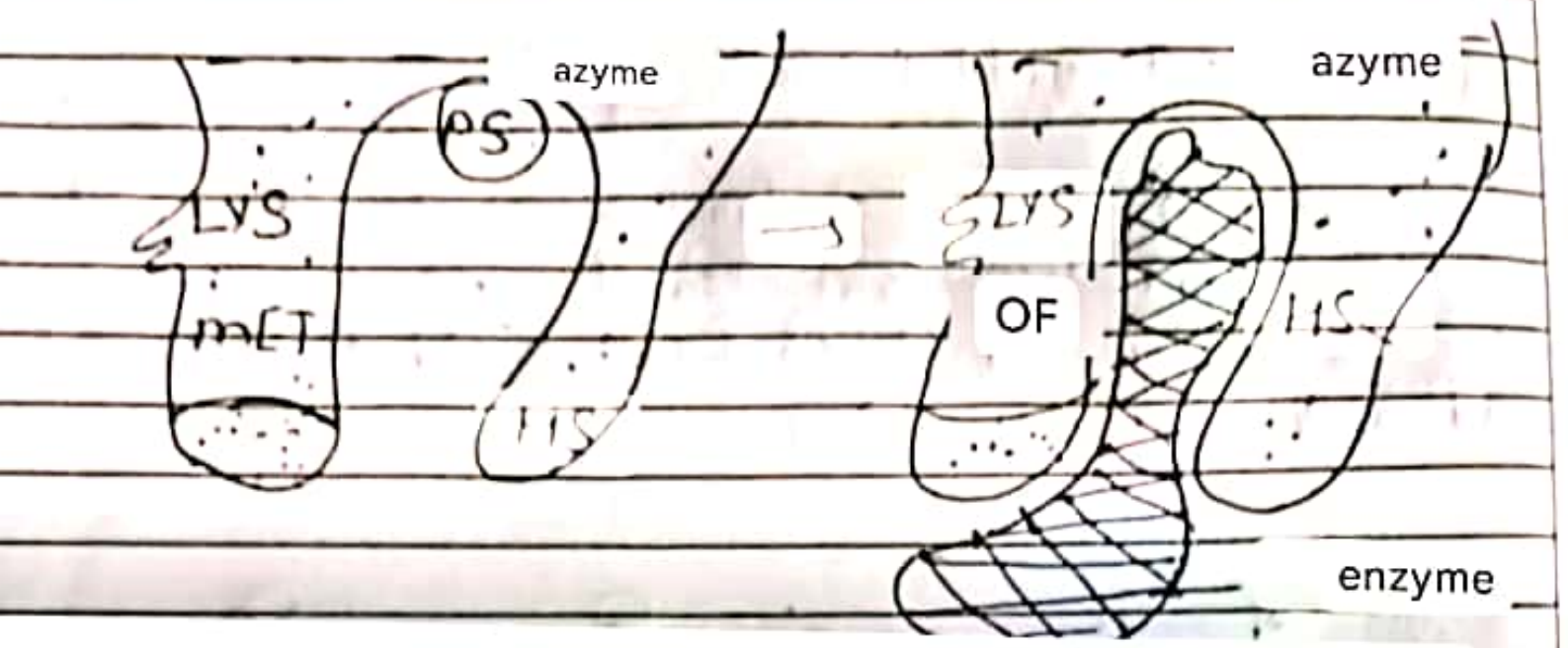

Dig - Koshland's theory of induced adhesion

2. Decrease in activation energy: The minimum amount of energy required for a chemical reaction to start is called activation energy.

The speed of any chemical reaction increases with the help of dichroism because dichroism reduces the activation energy of the reaction, allowing the reaction to take place at normal body temperature.

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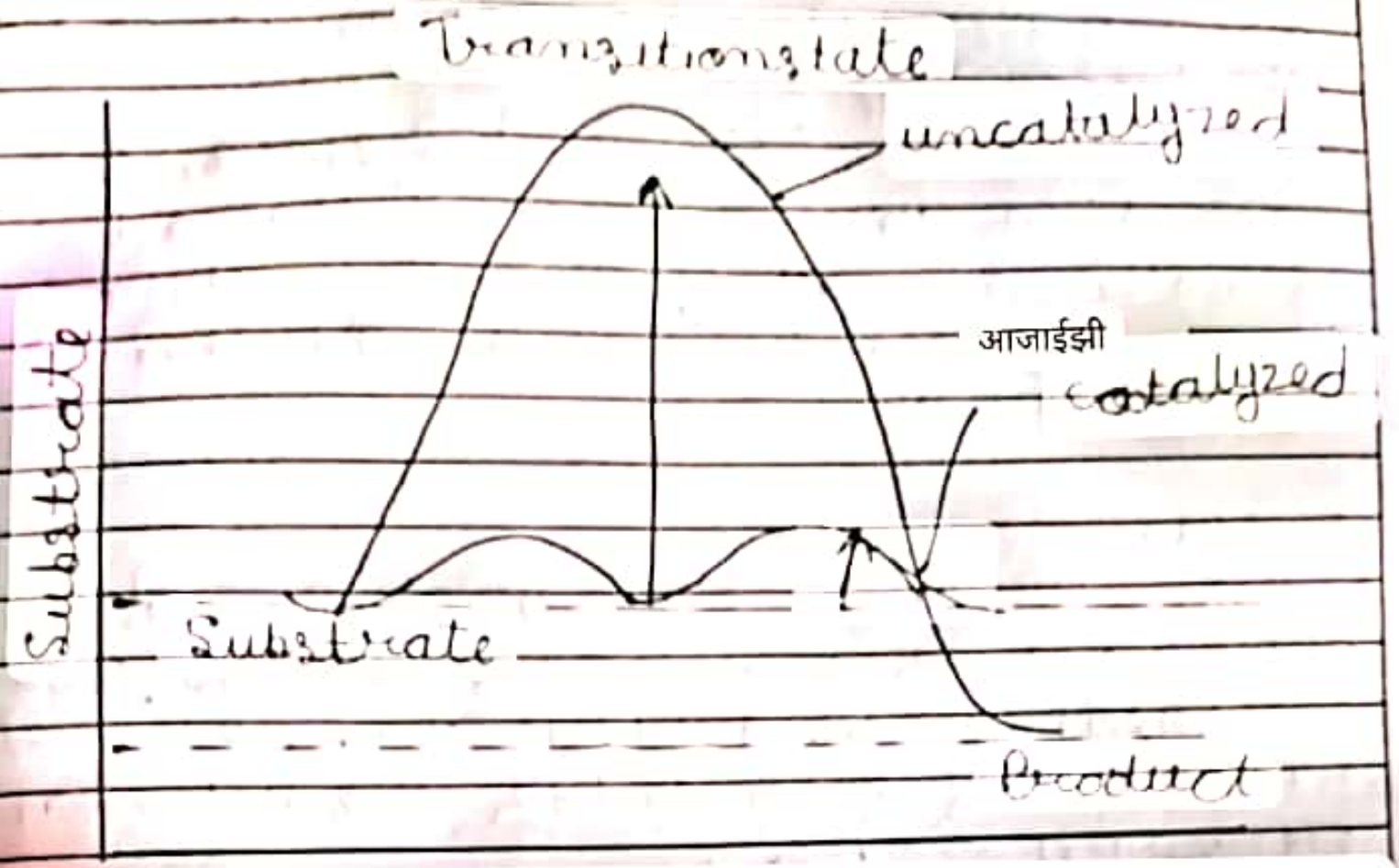

The activation energy of a biochemical reaction is determined by the

state of the digestive system and

The wicks combine with the starting molecule and change the conformation of the base to form a wick-intermediate complex, which is a state between the base and the product.

2. Method of Transfer or play in Flotham transportation

To understand the mechanism of transfer of organic solutes through flotsam, scientists have presented hypotheses, different theories and theories as follows.

(1) Diffusion hypothesis :- According to this hypothesis, the movement of organic solutes from higher concentration to lower concentration, i.e. from source to sink, takes place through a simple physical process called diffusion.

The high sugar content in the saccharides is similar to that in other parenchyma, and transport occurs through biofilms. This hypothesis was not accepted.

(2) Theory of electroosmosis:- According to the hypothesis of scientists Spanner and Fenson, the movement of solutes occurs according to the electrical gradient on both sides of the sieve plate.

The sieve lamella has a partially positive charge. The molecules on the adjacent surface can pass through it with ease. The solute also moves with it.

(3) Activity diffusion hypothesis: - This hypothesis Mason and Mashkel. and Mason and Philip

→ He explained that the solutes are either excited or their diffusion resistance is reduced to accelerate the transfer. He explained that due to the presence of neurons at certain distances in the sieve tube, contraction motion occurs in the sieve in the pump located tube and the speed of the molecules increases, due to which the solute dissolves.

(4) Or murder flow dynamism: - This was later proposed by D. Bridge. According to him, migration in the flotum occurs through a combination of cell rotation and diffusion (flow motion).

The mixture passes through conduction. the sieve by isometric

15) Intercellular fluid flow: Jain

conduction of blood to the flow rate and explained that diffusion He proposed the of substances occurs through sub-protein intercellular spaces in the lamina propria.

(6) Killing flow hypothesis: - This hypothesis was presented by Munj Hara which is also called Munj hypothesis.

→ According to this hypothesis, the transport of oxygen is carried out in the form of heart production and pressure. In the organic exosome, the organelle responsible for this transport is

Factors affecting migration: -

2 Temperature : temperature of organic matter

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What directly and indirectly affects the rate of translocation? Rates are higher at 25-35°C?

Translocation

(2) Types :- He and his colleagues explained that the movement of matter from the heart depends on light.

(3) O2: For transfer This is essential because ATP is required during the flocculation of 2 sucrose into the source tissue.

(4) Metabolism :- The processes required to transfer energy from source to sink, loading and unloading, require energy.

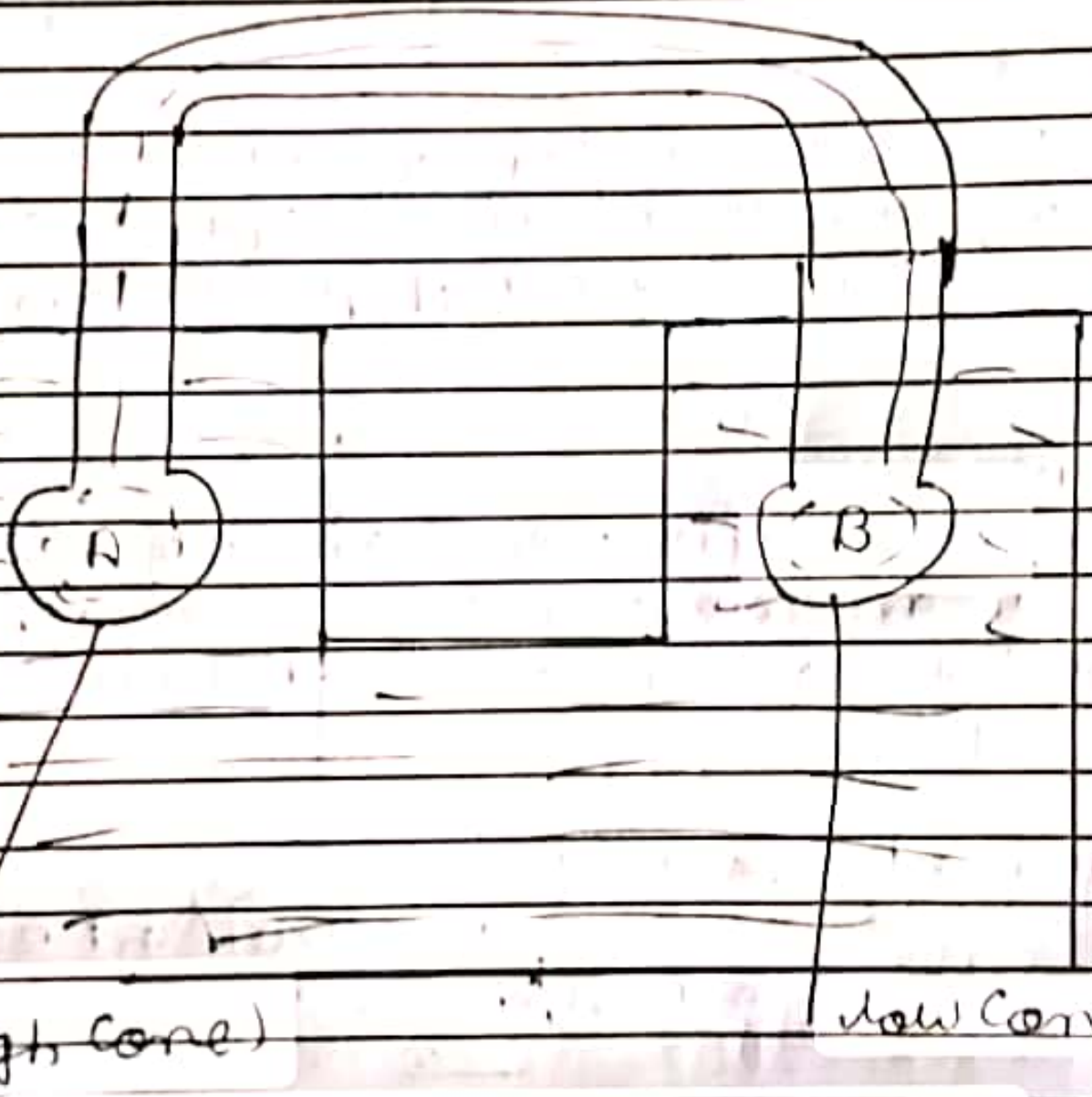
(5) Deficiency of minerals: - The use of certain elements affects the speed of transfer.

(6) Concentration gradient:-

(concentration gradient)

Concentration Gradient ↑ — Translocation ↑

Concentration Gradient ↕ — Translocation ↓



(High Conc.) — low Conc.

dig. Mass flow Hypothesis

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Sports A. Photophosphorylation:-

Arjan and Sahar (1954) discovered that chloroplasts synthesize ATP.

This process was named — photophosphorylation.

There are two types of photophosphorylation in green plants.

(4) Cyclic photophosphorylation

(3) Sudden photophosphorylation

(1) Cyclic photophosphorylation:-

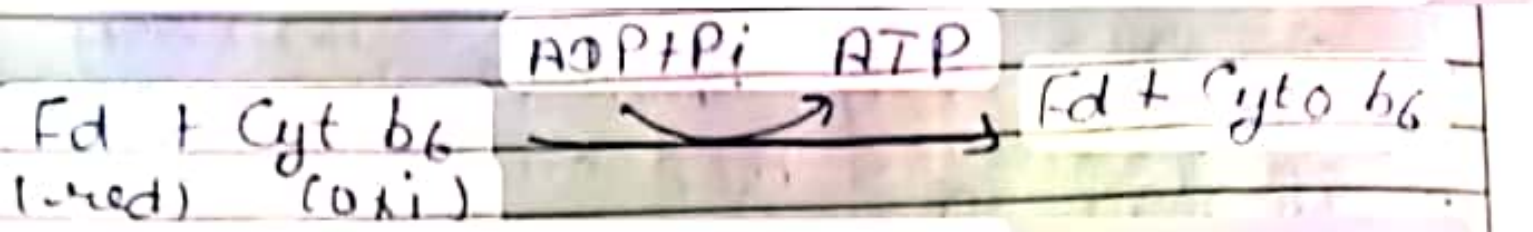
It contains PSI. Cyclic phosphorylation occurs when CO_2 is assimilated. and NADPH + H+ accumulates. Other metabolic reactions are

A3(riz0) FRS Fd

Reduced

Under metabolic conditions (due to excess of NADPH + H+), the reduced Fd is oxidised to NADP+.

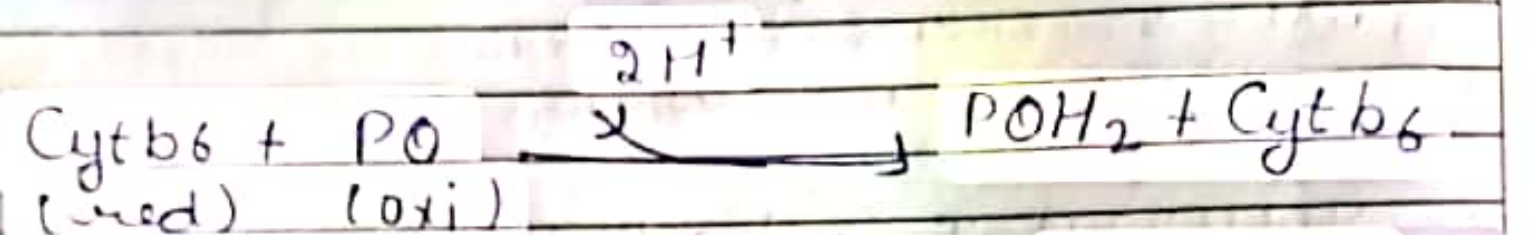
One ATP is produced during this process.



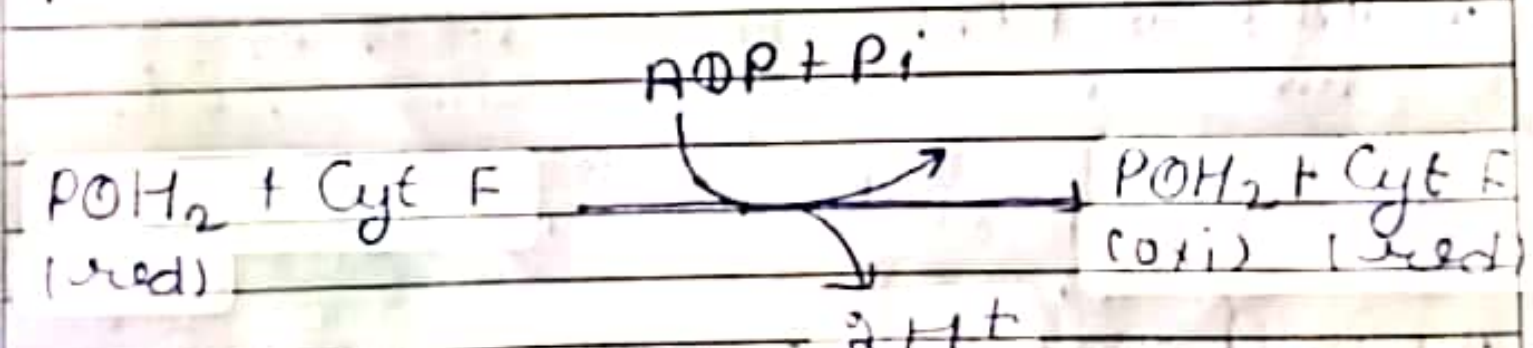
In the cytodome, 9 (PO) are received and all the thylakoid membranes are attached to it from the outer side.

transporters of Plastoid

Kinase



The POH2 membrane is transferred to the thylakoid membrane, while the thylakoid membrane is bent and moves inward. During this process, 1 ATP is synthesized.



From the adopted substrate, the first plastomycin is released and then converted Pro returns to the 22m state.

Cyt f $\xrightarrow{e^-}$ PC $\longrightarrow$ P_{700}

2 ATP molecules are formed in this process.

(3) Reactive photophosphorylation:- Foot

This is the common method of photophosphorylation. In this process, the 9-molecule released from the excited chlorophyll molecule never gets the same chlorophyll molecule again. After the 9- molecule release, the osmotic chlorophyll gets absorbed by hydrolysis and goes back to its original state. 371 From each do climatic oxidant, ATP is produced and NADP is reduced and one O2 molecule is released.

$$QADP + 2\,Pi + 2NADP + 2H_2O \rightarrow 2ATP + 2NADPH + O_2 \uparrow$$

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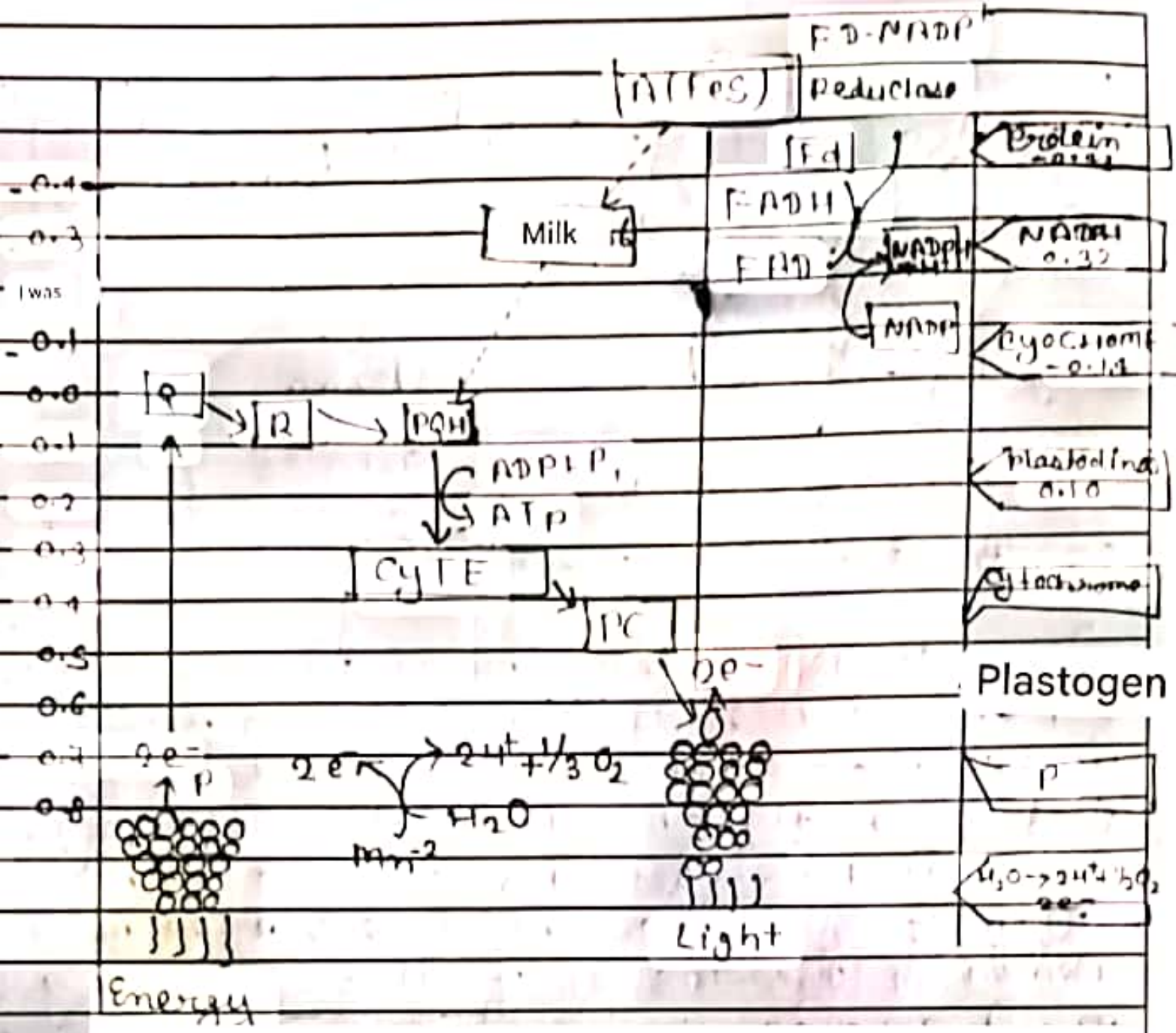

In photosynthesis, both primary and secondary photo-stimulated phosphorylation is shown.

and efficiently utilizes the ATP molecules produced in upstream phosphorylation use effect.

in a, which explains the emergence enhancement

the assimilation of

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Plant honey factors (hormones): - those hormones which

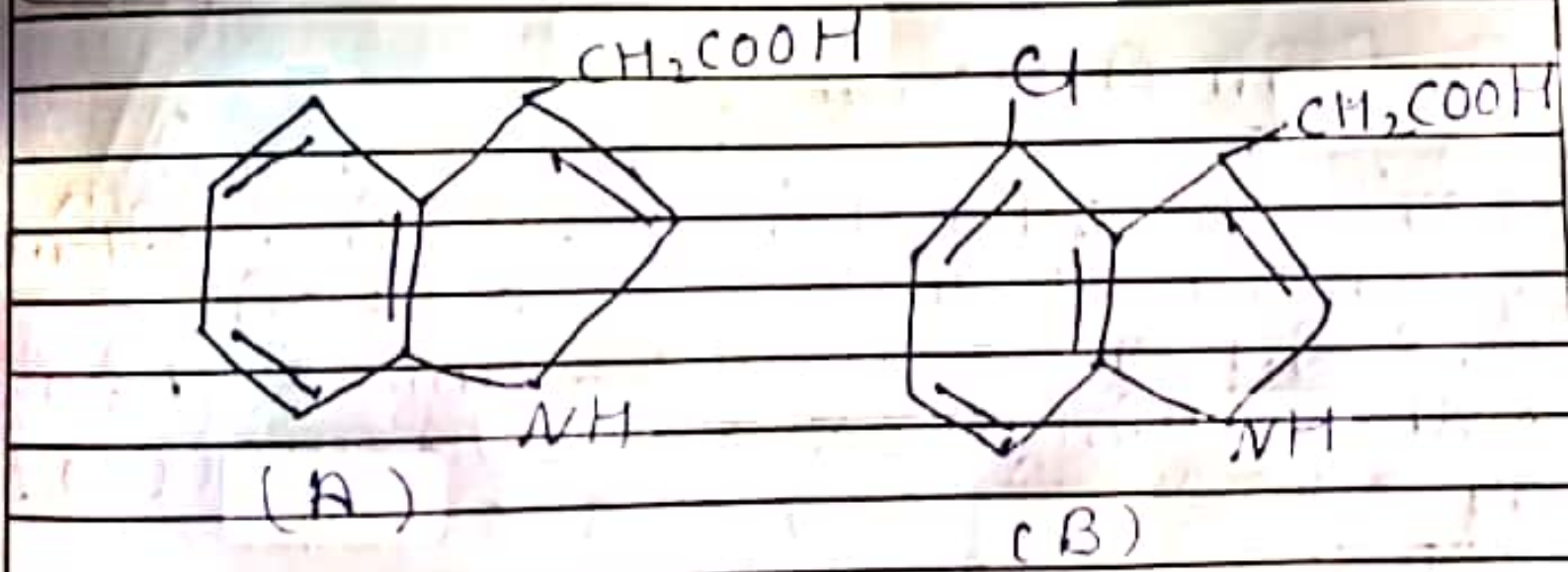
Plant growth factors that stimulate growth or increase the rate of growth are called plant growth factors: avoirdin, zimberlin, and cytokinin, ethylene,

The difference in the names of Jevisin, Gestrerlin and Cytokinin is as follows -

Structure of fire:- Oxynnu,

Badal-u-chitic acid is found in higher plants and fungi.

Apart from this, its molecular formula $C_{10}HgO_2$, aldehyde indo-indole, ethanol and p chloro-indole acetic acid are also found in higher plants.



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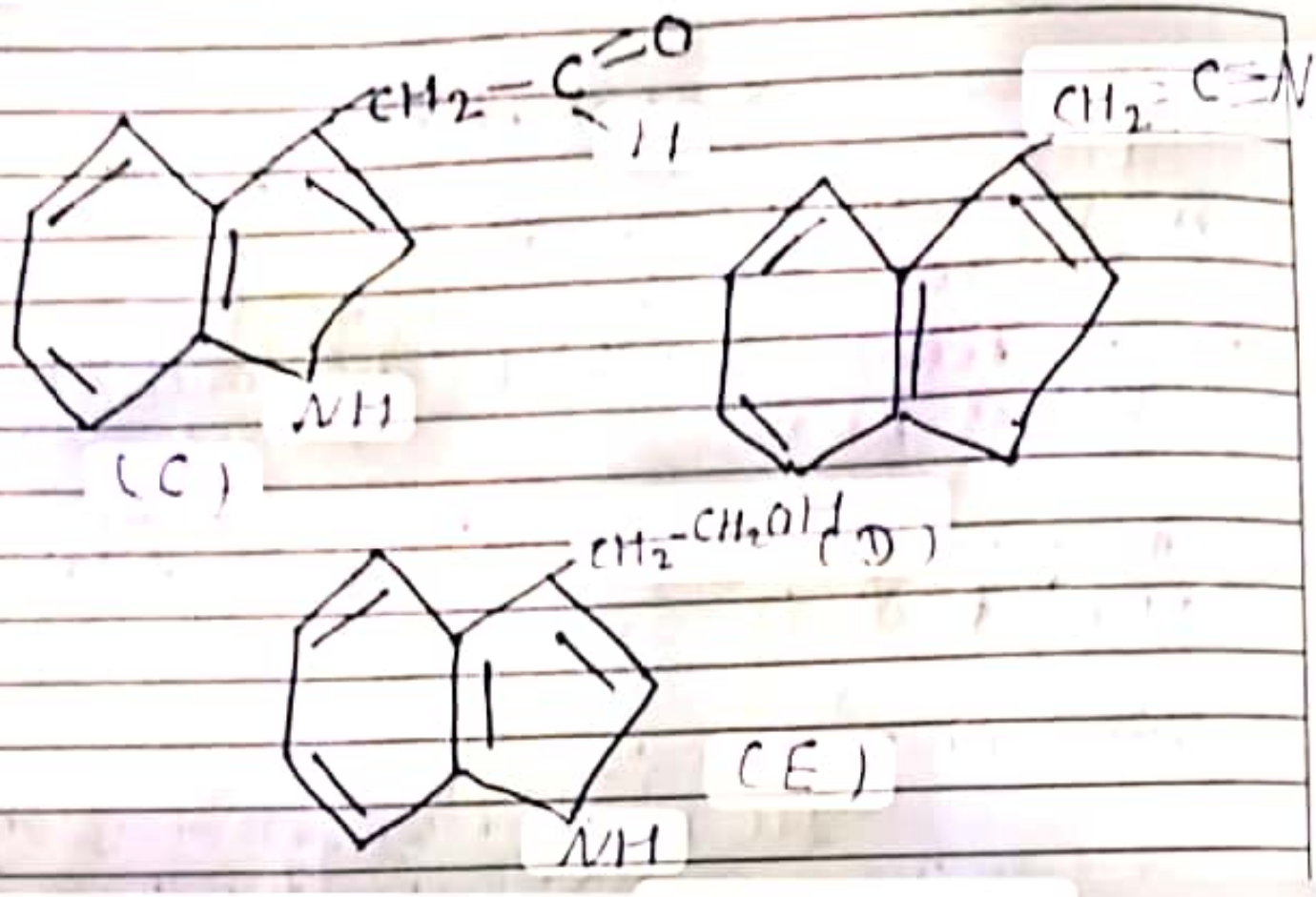

Chemical structure of digoxin:

(acetic acid (IAA) Indots-u-chloroindole

citric acid (B) Indole-u-acetaldehyde

(B) Indole-u-acetonitrol (E) Indole-3-ethanol.

Structure of Gibberellin:-

Gibberellins are widely distributed in the plant kingdom. Algae, fungi, moss, fungi, and seed plants. The basic structure of all gibberellins is similar. All gibberellins have a carboxyl group (COOH) attached to

C-7.

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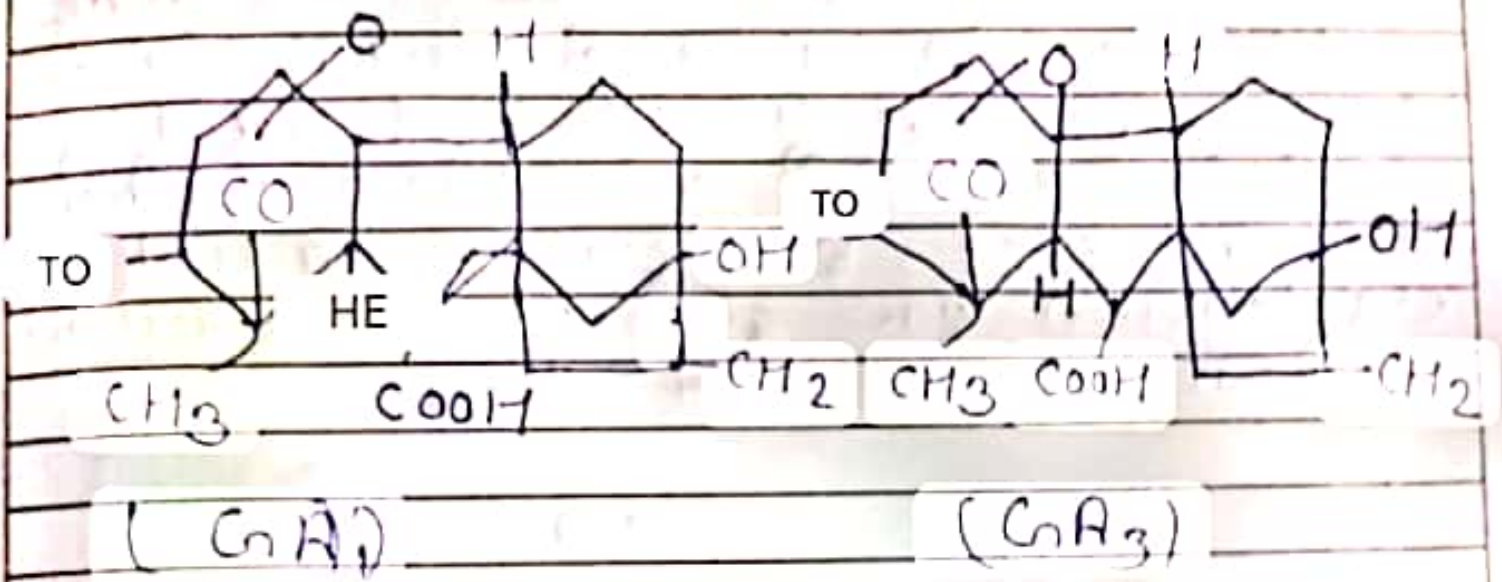
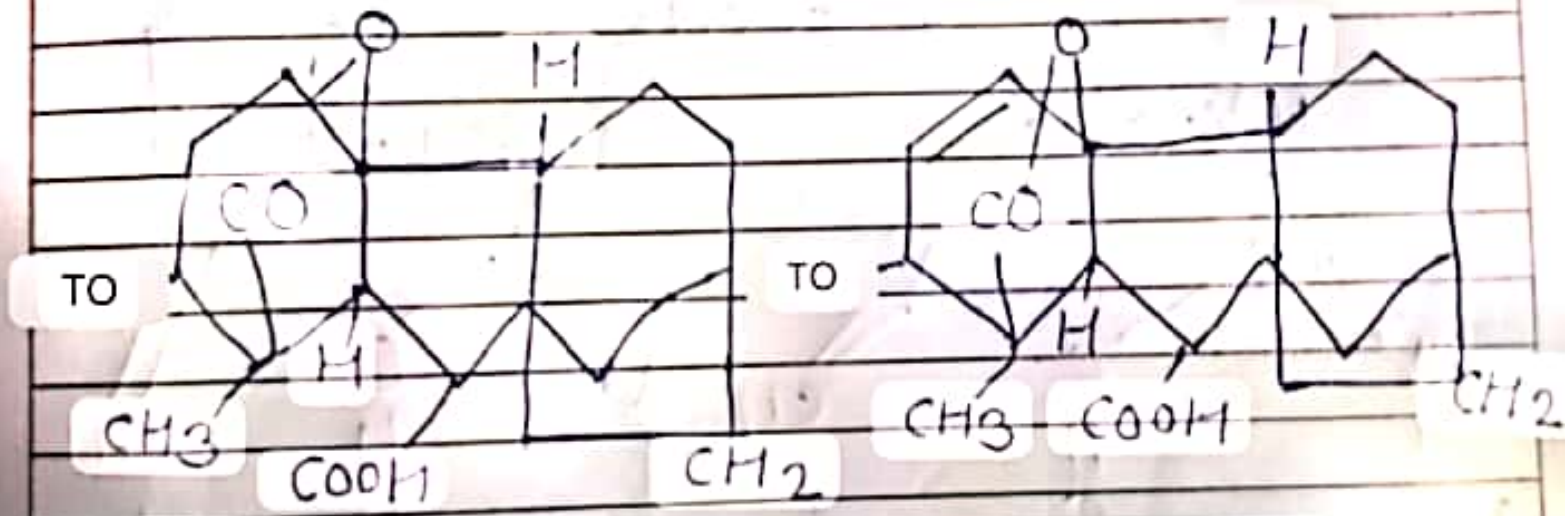
In addition, there is one or more OH substituents. Some gibberellins may also have an OH group substituent.



(GnA1) (GnA3)

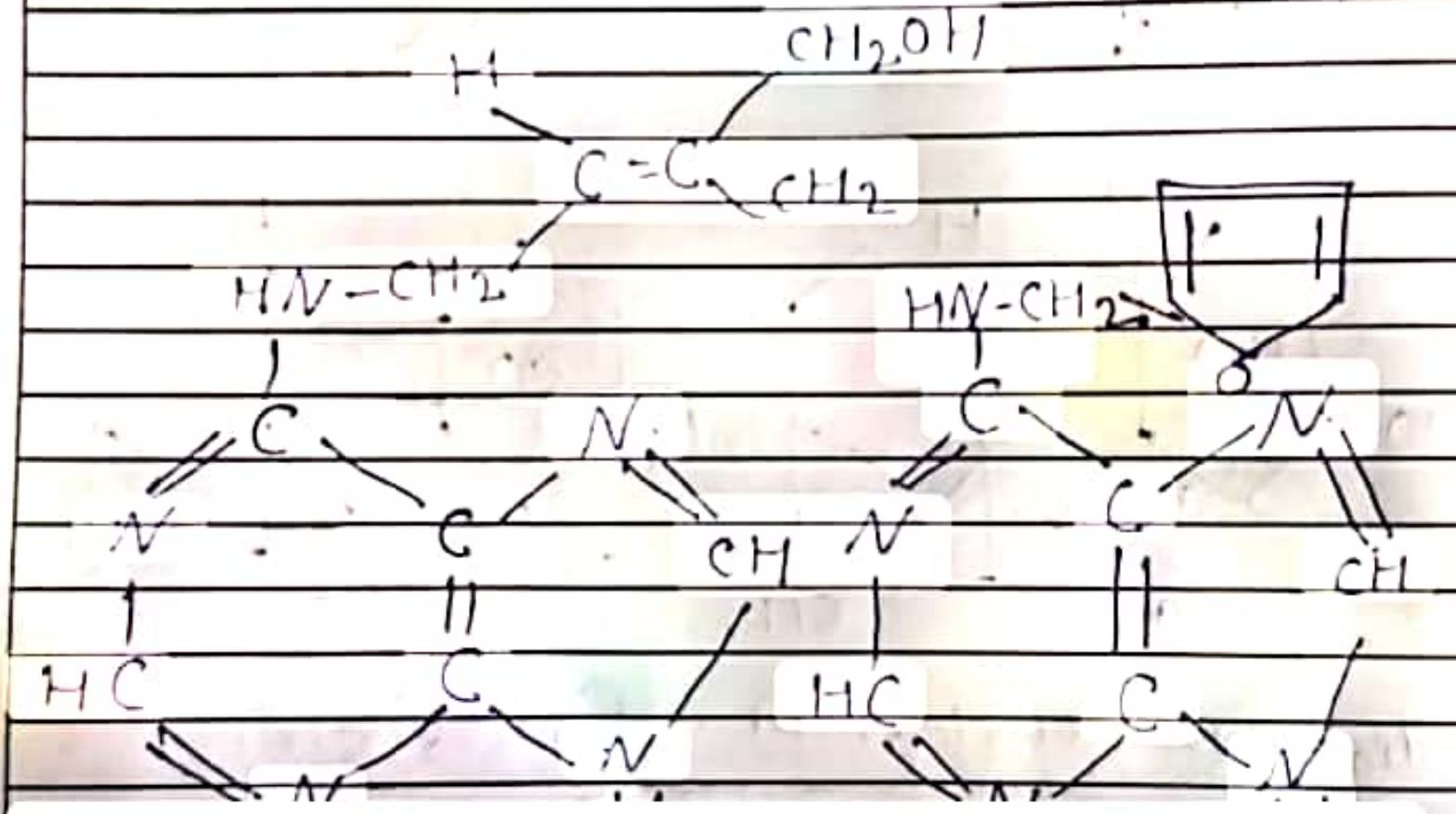


dig - Molecular structure of some gibberellins

Structure of cytokinin:-

creative

Almost all cytokinins from the host family contain a purine (purine) ring, meaning all cytokinins are purine derivatives. Instead of a ring, a side chain is present, consisting mostly of amino acids. Generally, different cytokinins differ from each other in the nature of the side chain.



dig. Superstructure of major cytokinins