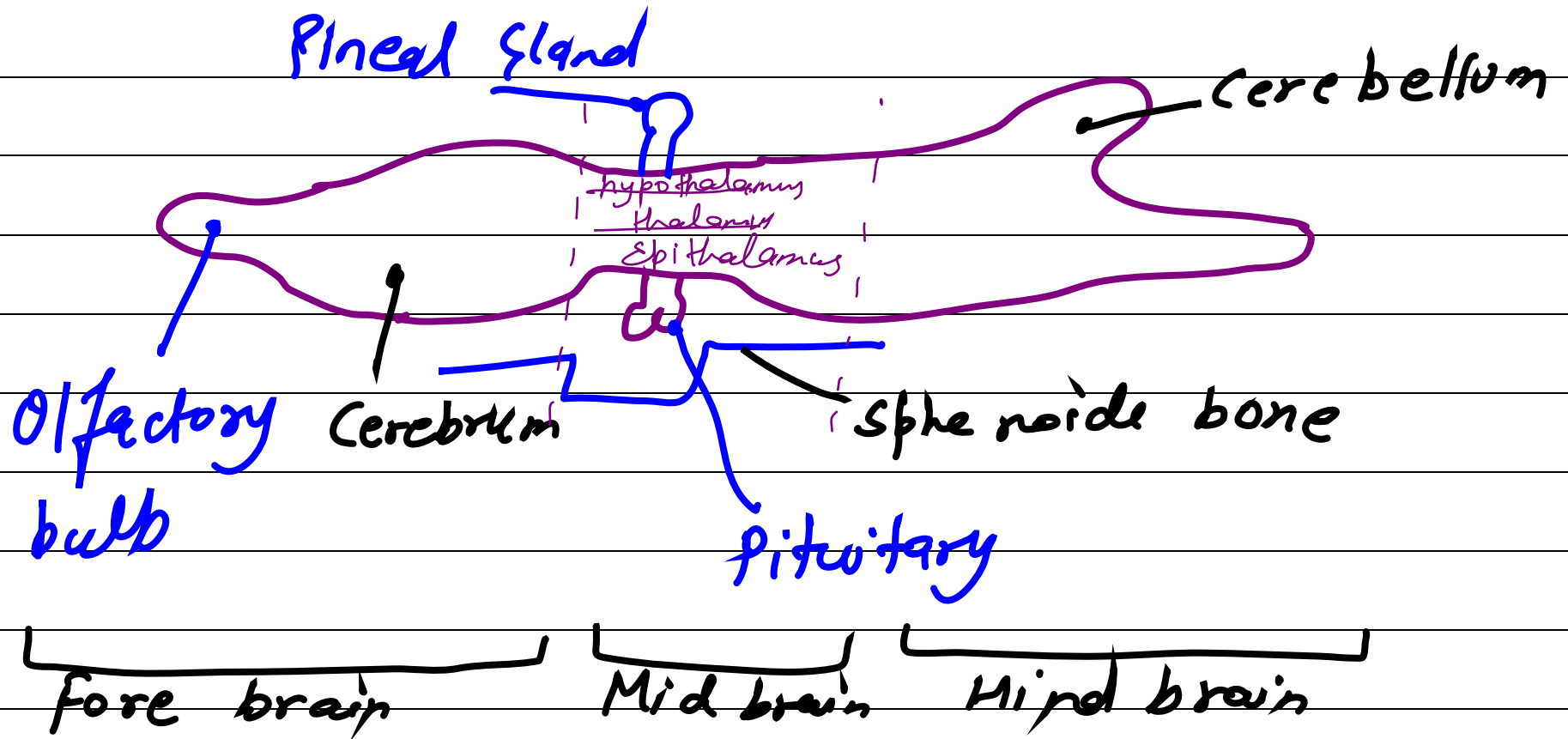




# Sec-A

## Q-1 Pineal Gland :-



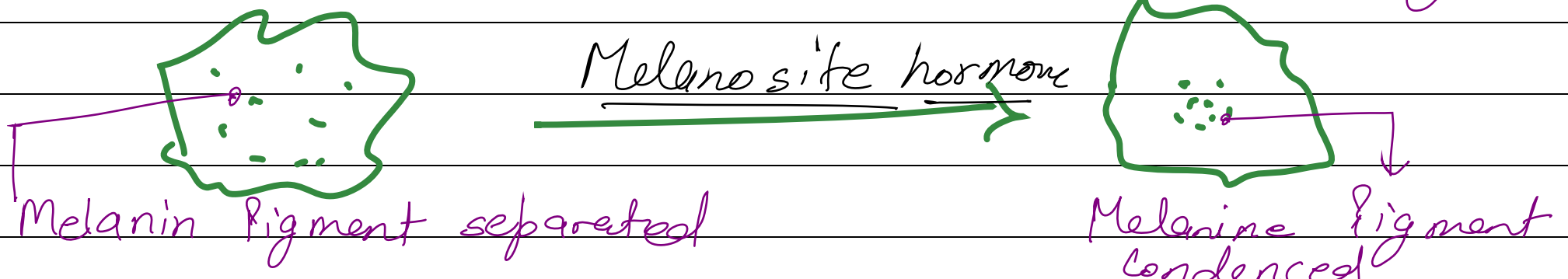
# Situated :- Pineal gland situated opposite side of Pituitary gland.

# Secreated hormone :-

Melanocyte Hormone

Hormone work :-

This Melanocyte hormone condensed the separated Melanin Pigment in the body.



## Q-2] Two protein hormones :-

<u>Hormone</u>	<u>Work</u>
(i) <u>Oxytocin</u>	→ It's help to ejection the milk from <u>mammary gland</u> of <u>Mother</u>
(ii) <u>GH</u> (Growth hormone)	→ It's help in <u>Growth</u> in body.
(iii) <u>MSH</u> (Melanosife Stimulating hormone)	→ Work in <u>Melanin Pigment</u> (Provide colour the body)

## Q-3 Menstrual Cycle

Which cycle related with mammal (mostly man) ovulation (or releasing ova) it's known as Menstrual cycle.

★ Men → Mammals (Men)  
strual → Ova released

## Estrous Cycle

It's also related with ovulation but if this condition not study under in man but study ovulation other species it's known as Estrous cycle.

• Estrous → Ova released but it's term used under like → Reptiles, Amphibians etc...

In Mammals :-

→ Timing for unfertilized ova released is 48 hours.

→ Timing for unfertilized sperm released is 24 hours.

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Q3-4 Function of Oxytocin :-



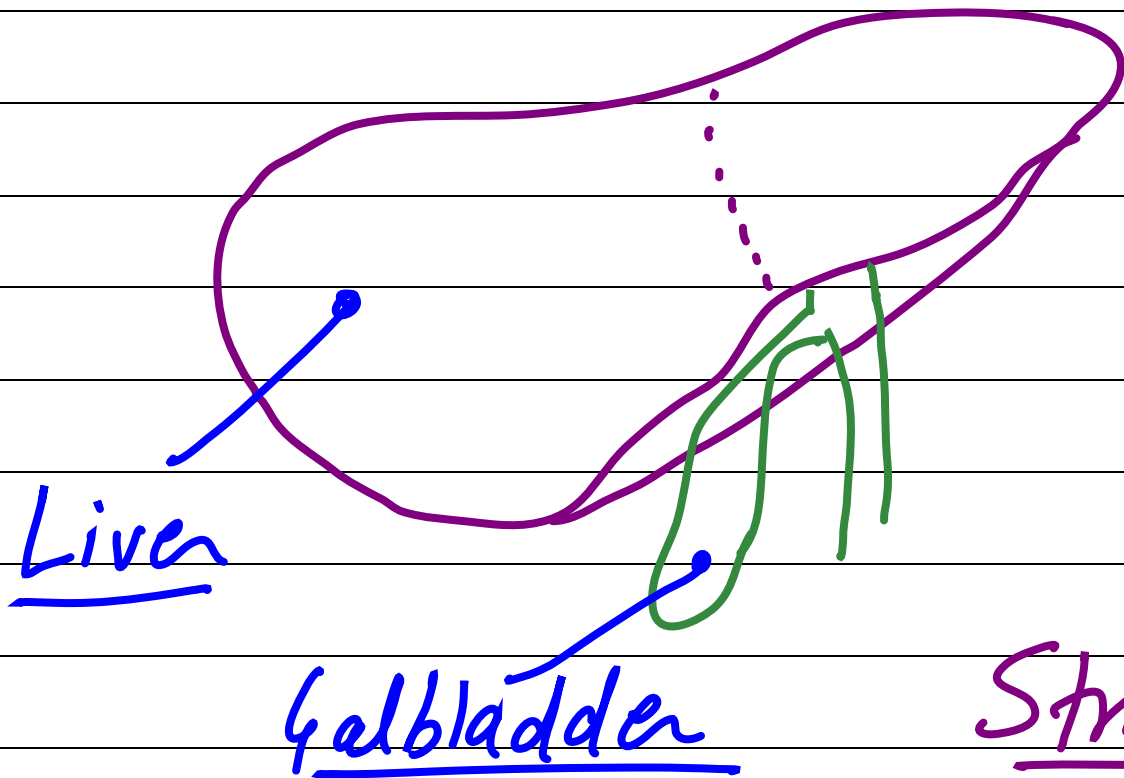
Oxytocin is released by Posterior  
Pituitary (Neurohypophysis).

Work :- It's help of released or  
ejection the milk into the mammary  
gland of woman.

Note :- It's not help in the formation  
of milk. But, it's also  
help in the ejection of milk.

---

# Aj-5 / Structure & function of Liver :-<sup>7</sup>



## Structure of Liver

Situated :- It's situated below the diaphragm.

pH  $\rightarrow$  2 (Acidic)



Note:- It's a largest gland.

Works:- It's help in food digestion.

- There is a structure gal bladder which produce bile juice it's acidic in nature.

But it's also helpful for digestion of food.

- It's converted the pH value of food for their digestion.

- In human digestive system there is a layer of mucus which protect HCl acid

Because this HCl acid is very acidic in nature.

Sec - C

Q-10 Composition and function of blood:-

Summary :-

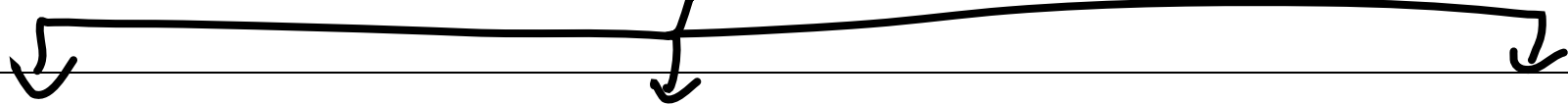
- Blood
- Blood composition
- Immunity Response against Any Antigen
- Blood function

# BLOOD

Introduction:- Blood is a connective tissue of body. Which provide many type of Nutrients, Hormones & Enzymes according body parts functions.

## BLOOD COMPOSITION

### BLOOD



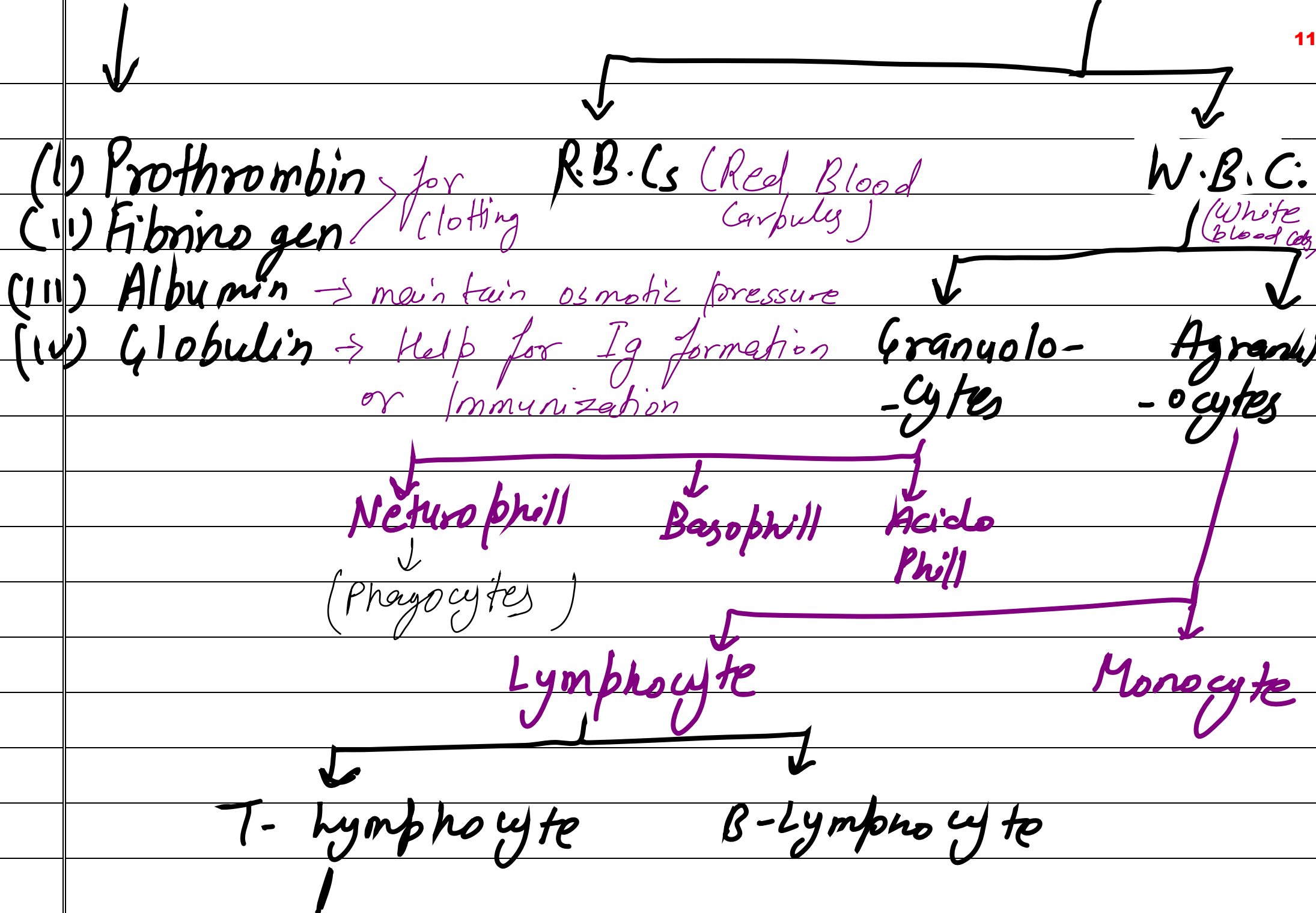
Plasma  
(55%)

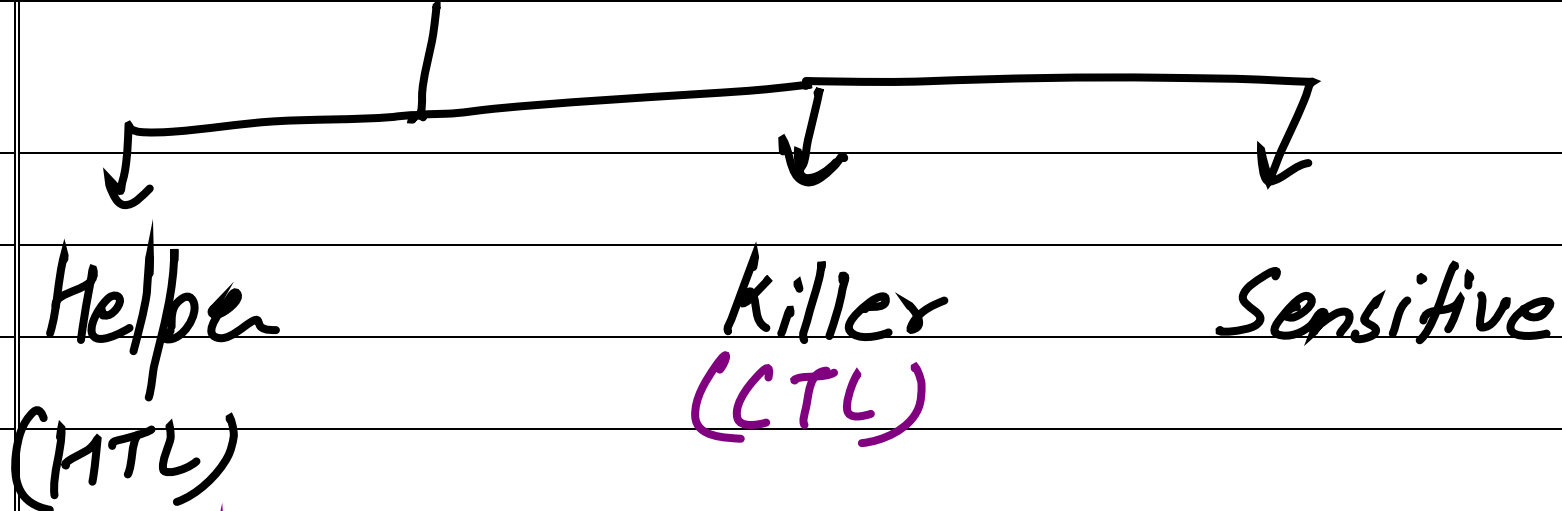
(Consist of Protein, H<sub>2</sub>O, minerals etc...)

Platelets  
(1%)

They are the large molecules.

Cells  
(45%)





(i) Plasma <sup>a</sup> - They make the (55%) of blood.

They contain protein, H<sub>2</sub>O, Minerals according body requirements.

→ Prothrombin & fibrinogen :-

They are the responsible for blood clotting.  
(eg - 13<sup>th</sup> factor the one of blood clotting)

Prothrombin

$Ca^{+}/K^{+}$

Fibrin

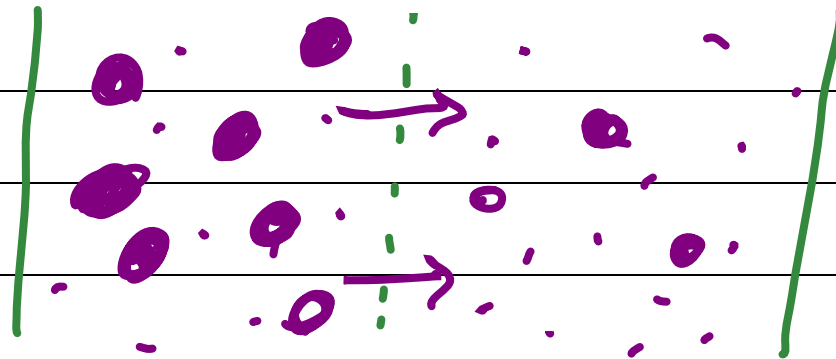
Thrombin

Blood Clotting

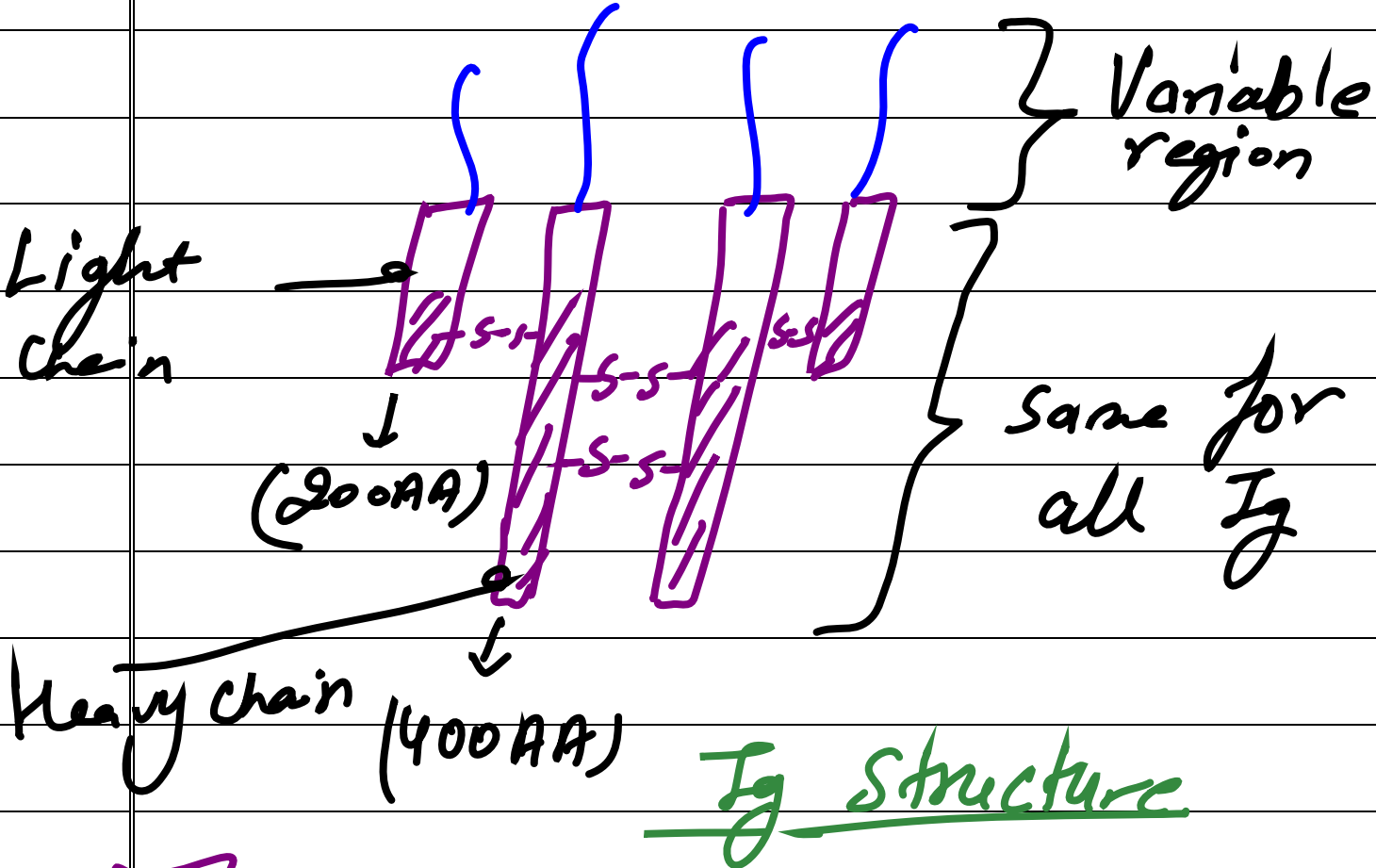
Fibrinogen

Albumin

It's maintain the osmotic pressure of membrane.



• Globulin :- It's helpful for making Immuno-  
-globins Ig. They are immune  
system responsible.



Note :- Larger Ig → Ig M (Pentamer)



# # Cells - Cells contain two parts

R.B.Cs ~~Shape~~ Shape

W.B.C

They do not have nucleus.

They have nucleus.

- It's biconcave type in structure.
- It's colour is red due to the presence of hemoglobin.
- It's carry the O<sub>2</sub> in our body.

- It's larger than R.B.Cs & globular & ovular in the structure.
- It's colour is white.
- It's <sup>work</sup> like a phagocyte (eat the germ) e.g. - Neutrophil

## → W.B.C.

↳ Agranulocytes (Granules are absent)

↳ Granulocytes (Granules are Present)

## → In Granulocytes:-

→ Neutrophil :- They work to eat up the germ (Phagocytosis)

→ Basophil :- They secrete chemical for

Vasodilator, Vasocontractor & Blood Coagulant factor (Histamin)

→ Vasodilator → It's dilate the blood vessels

When any germ enter into into Blood cells.

→ Acidophil :- They are acidic in nature.

→ Agranulocyte :-

→ Monoocyte :- It's helpful for prevention the Antigen responsible for immune system (eat the germs)

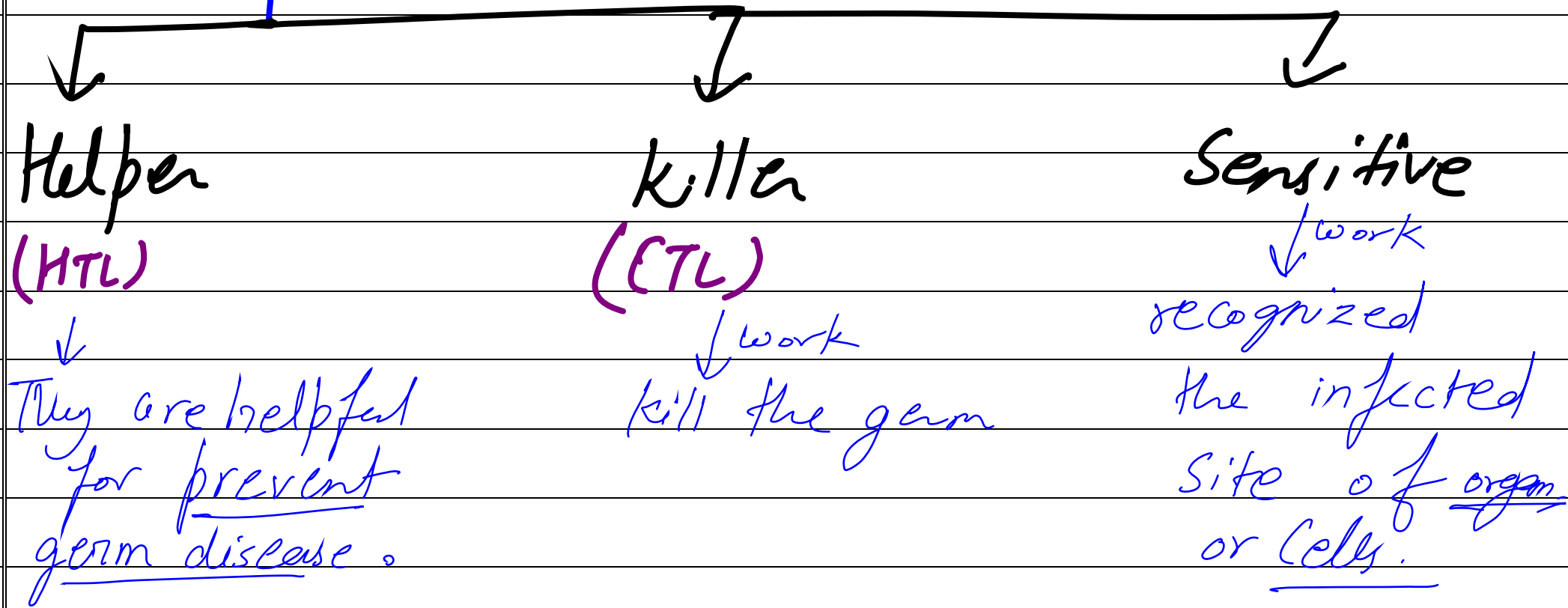
→ Lymphocytes :-

T- Lymphocyte

B- Lymphocytes

[ Related with thymus ]

[ Related with Bone marrow ]



Note :- In HIV disease HIV virus eat the helper cells & cause the AIDS.

# Response against any Antigen :-

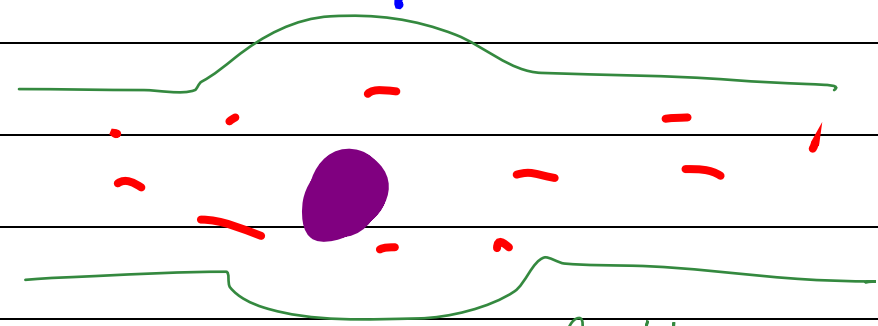
## Three layer of protection:-

1) Skin:- It's plasmolysis the germs  
by sweat release (Sweat have some  
Plasmolytic chemical).

2) Blood:- In blood Neutrophils & Monocytes  
eat up the germs.

3) Ig:- or Anti body:- When any Antigen  
reach into the any  
organ then Anti body works.

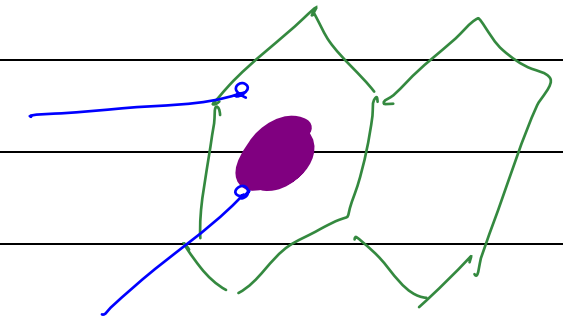
Vasodilator work for swelling the cell.



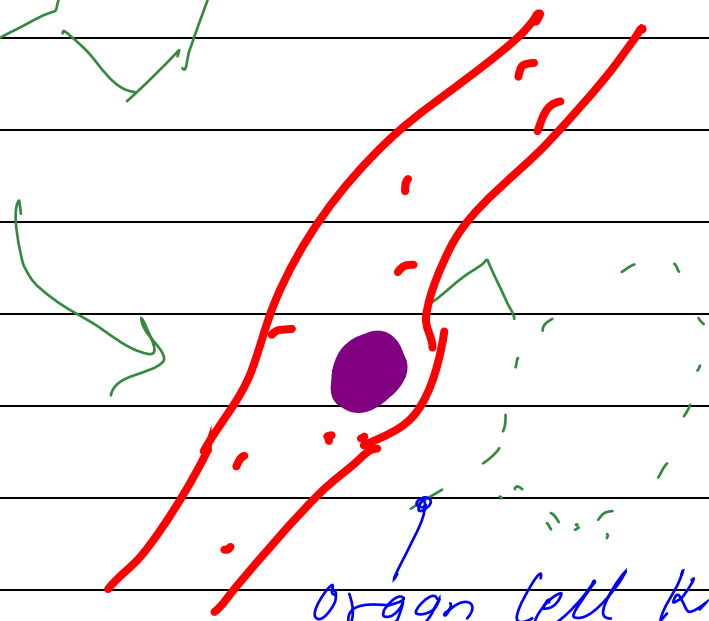
if Antigen reach any organ

- In these condition Sensitive cells find out the infected organ then Killer cells works after germ reach into the blood

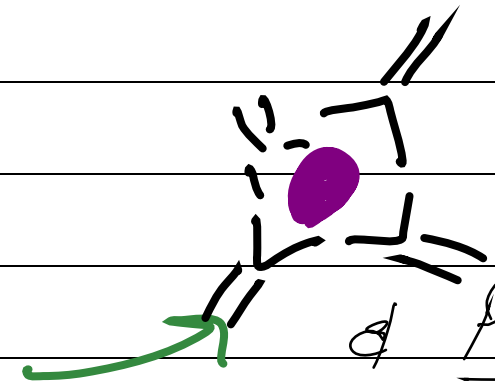
organ cell



germ



organ cell killed by

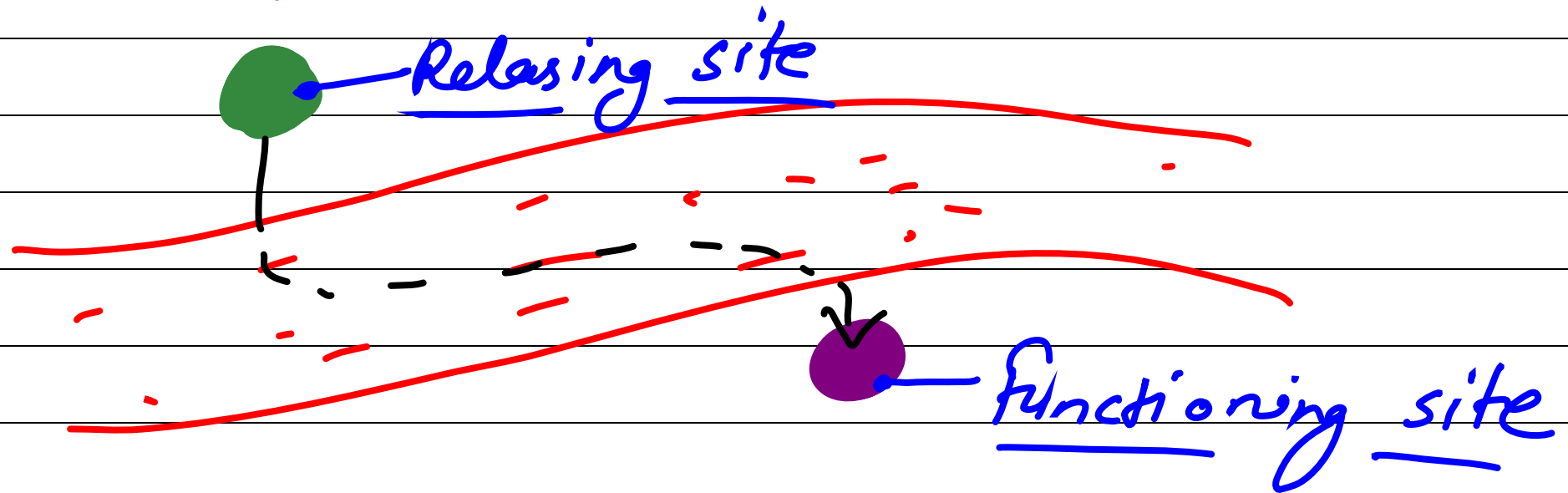


& then Antibody catch this & Phagocytosis  
Neutrophil eat up the germ.

→ These all work done into the blood .

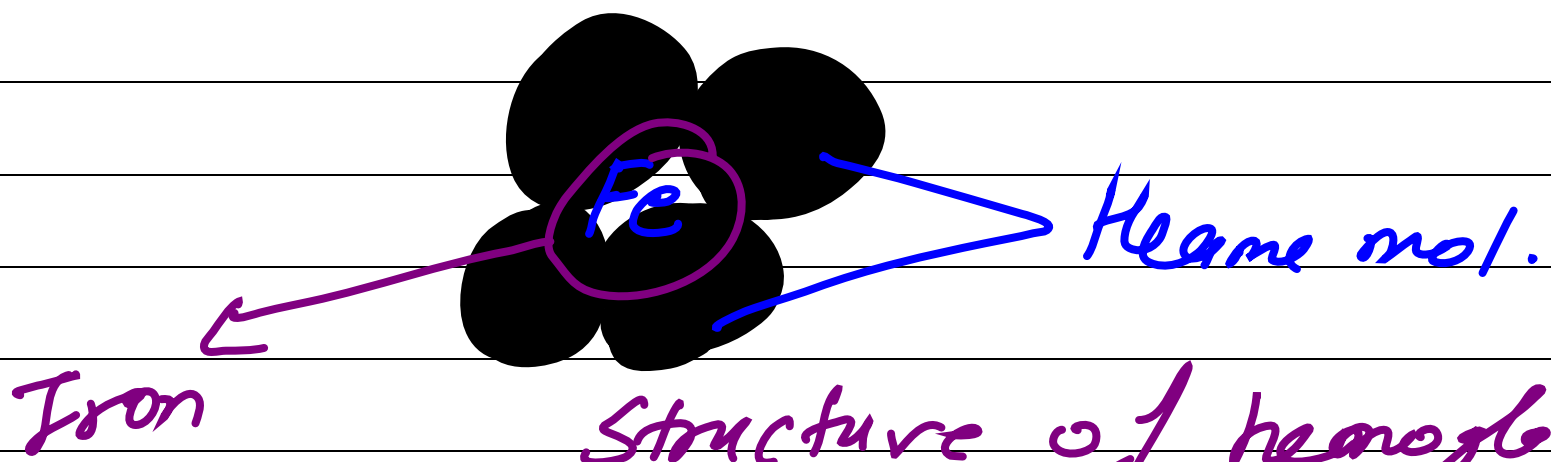
→ Or Blood work as a connective tissue like it's reaches all elements like - hormones, Enzymes reach into the blood they pass out

Other organism .





Note :- It's important work of carry out of O<sub>2</sub>.



Structure of hemoglobin

One heme molecule carry out 2 O<sub>2</sub> mole.

Total one hemoglobin mole  $\Rightarrow$  Carry out

8 O<sub>2</sub> molecules.

# Sec-B

A3-7

