

General Science and Ability *

Date 10.08.2023

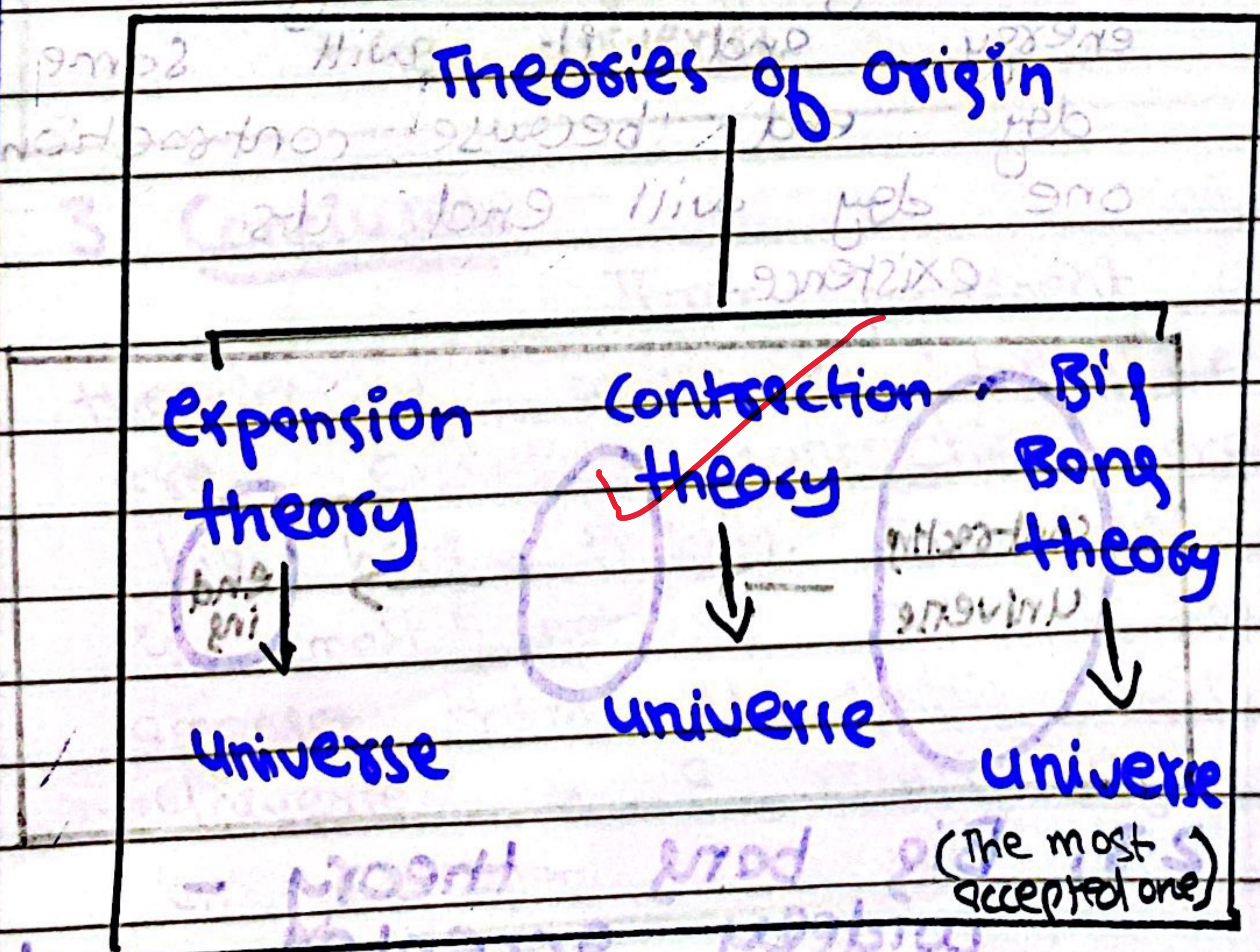
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Briefly describe the most popular and accepted theory about the origin of the Universe (CSS-2021)

1. Introduction: theories of universe and widely accepted one

There are number of theories about the origin of universe; which include expansion theory, contraction theory and the most popular and widely accepted big-bang theory. It states Universe was all energy before the big bang happened. It was big bang that created the universe.

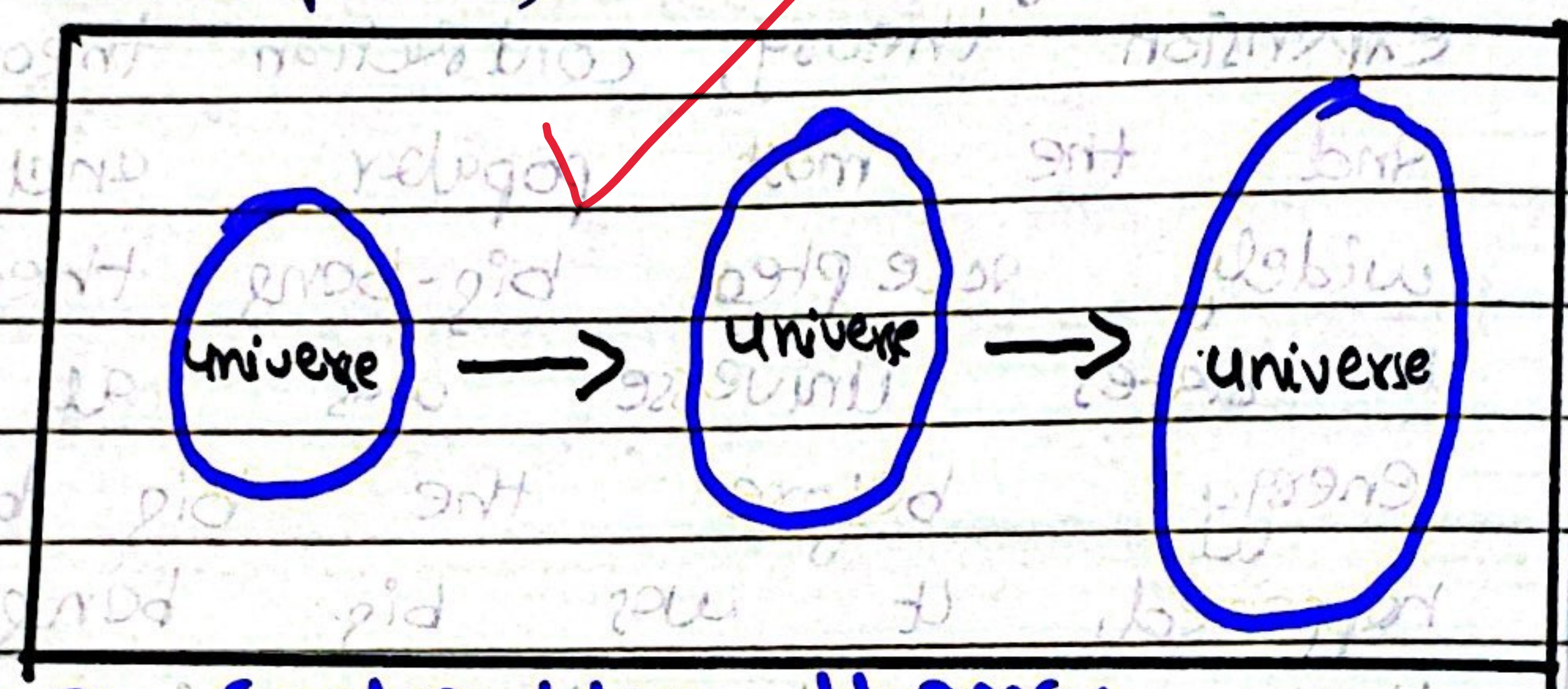
2. Briefly enumerating theories of origin of universe



Following are some main theories of origin of universe

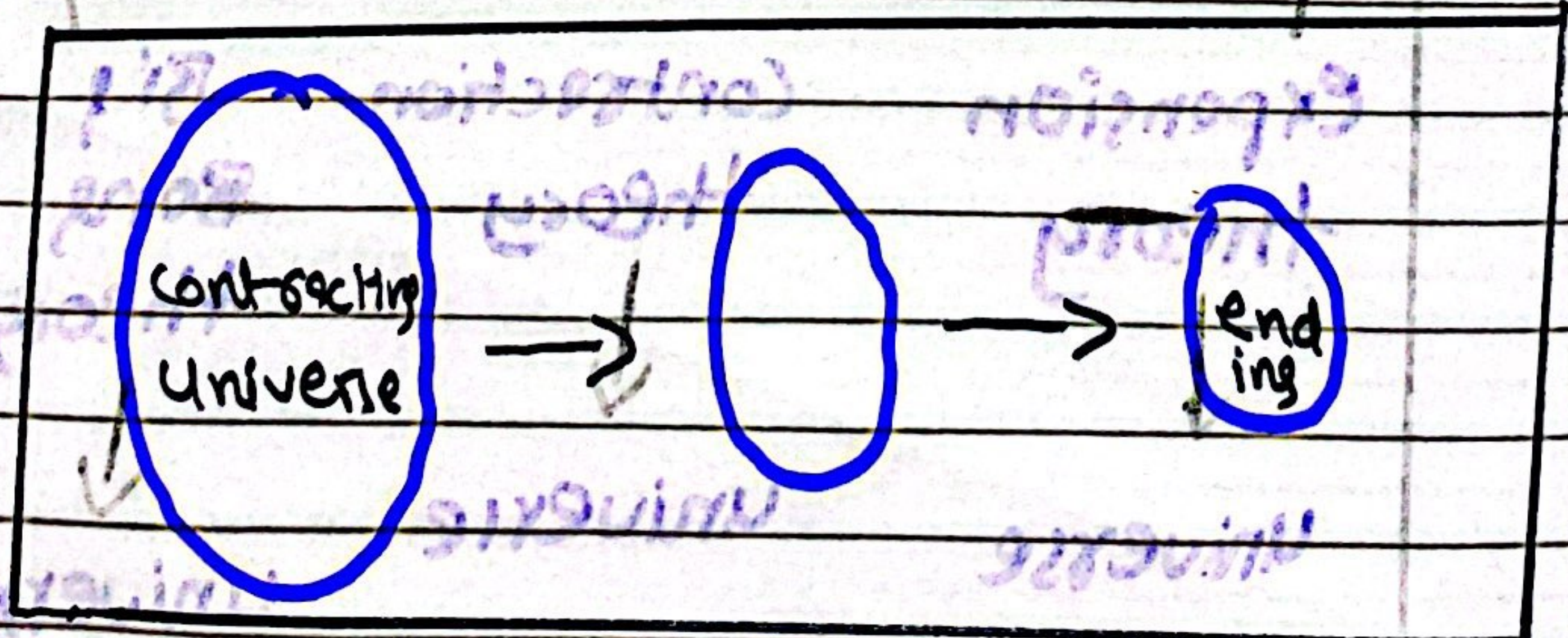
2.1, Expansion theory:

Evident from the name, it states that universe has come into being by expanding, and it is still expanding - and continue likewise



2.2, Contraction theory

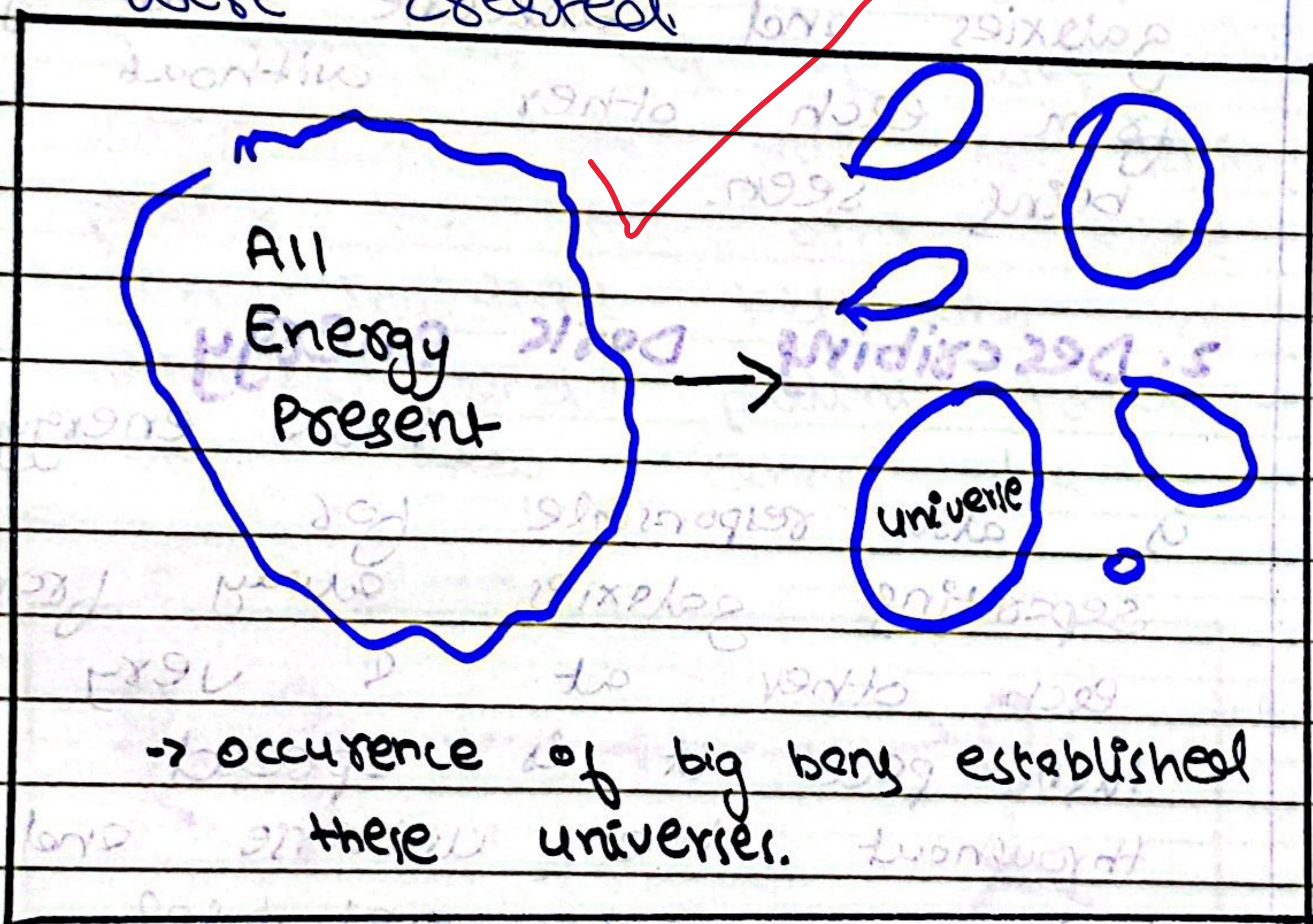
Contrary to the expansion theory, it states that the universe is result of contraction of other energy and it will some day end - because contraction one day will end its existence.



2.3, Big bang theory - widely accepted and prominent theory of

Origin of Universe

The big bang theory opine that all the black space was energy before universe came into being. A massive explosion occurred - what is now pronounced big bang - that created the universe from energy, and many of the small universes were created.



3, Conclusion

Three prominent theories of origin of universe are expansion, contraction and big bang theory. Big bang is most notable and accepted amongst them. It states that universe is a result of an explosion.

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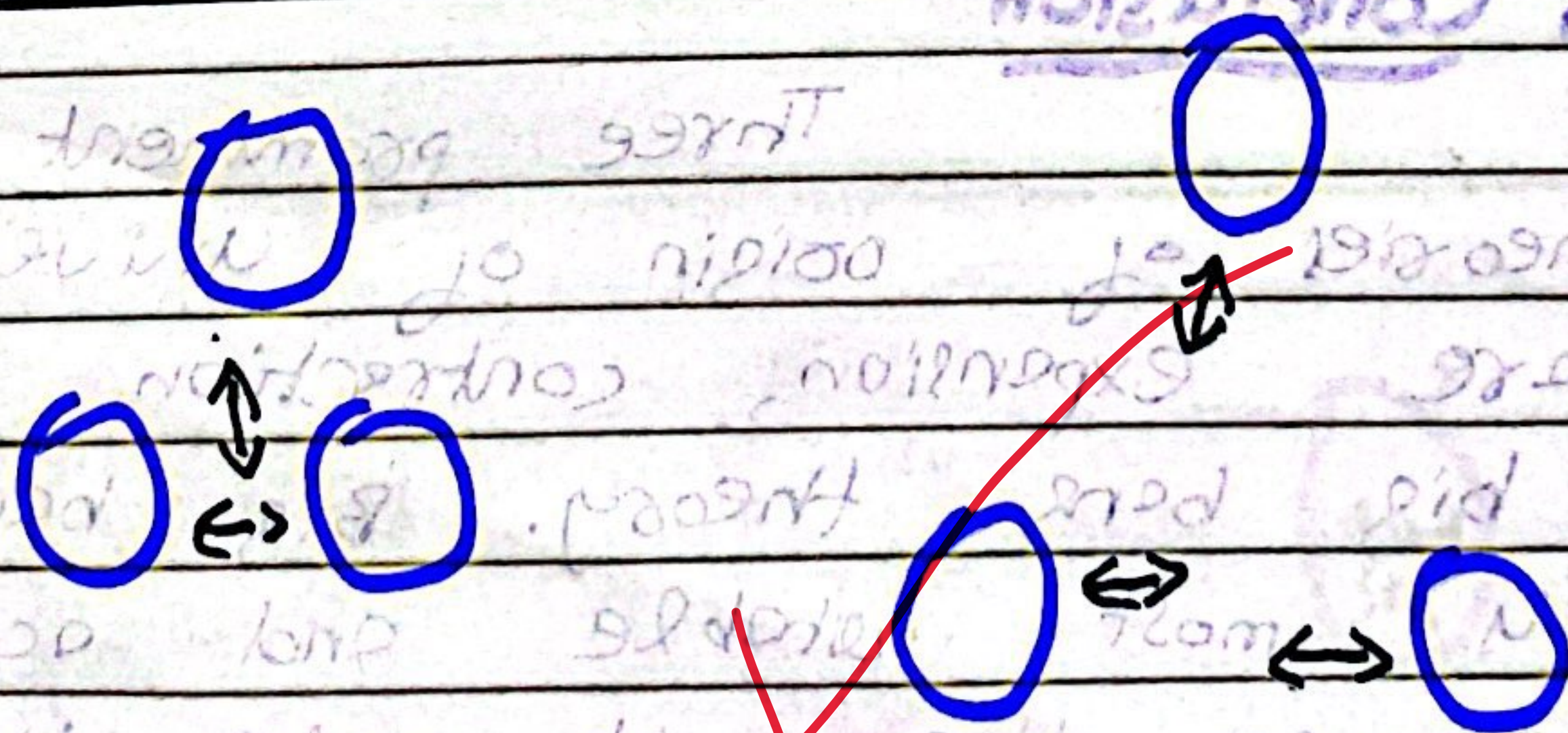
Explain the terms 'Dark matter' and 'Dark energy' - (css-2018)

1. Introduction: Dark energy and dark matter

A Dark energy is supposed to be responsible for accelerated expansion. Dark matter is an invisible matter that is stretching galaxies and universe away from each other without being seen.

2. Describing Dark energy

Dark energy is also responsible for separating galaxies away from each other at a very high speed throughout the universe and had been discovered lately.



Before the dark energy effects were observed

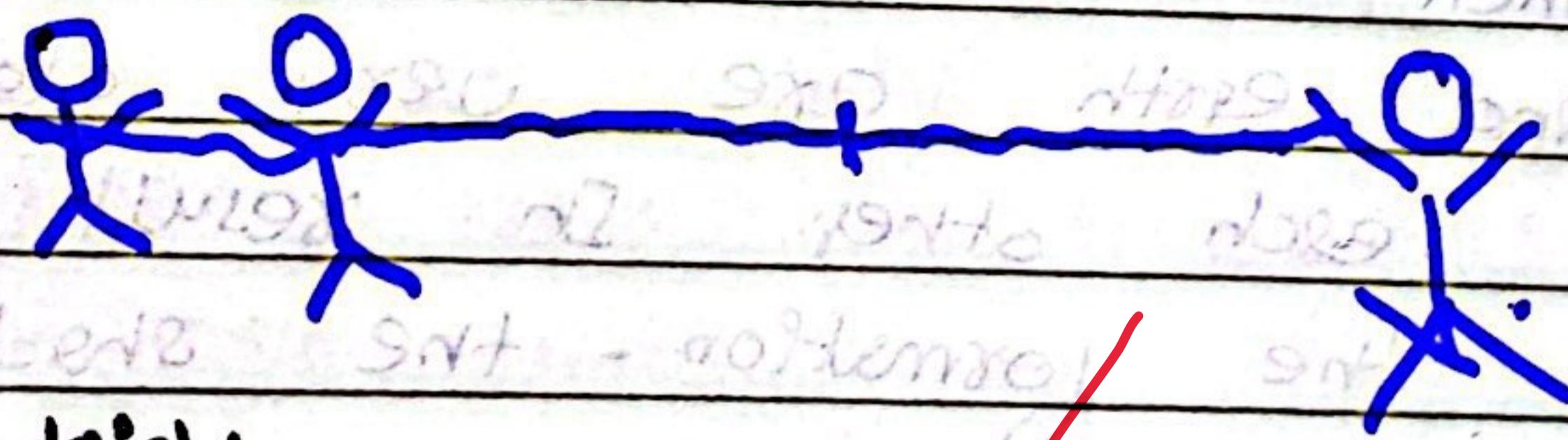
Now, the pace has increased manifold: galaxies going far from each other.

3, Explaining dark energy matter!

It is invisible matter, which does not emit light but can be observed only. It can not be seen with any scientific gadget.

3.1, Example for understanding

consider a game of tug of war where on one side are kids pulling on the other side are invisible kids - who are winning and pulling harder - and they cannot be seen.



kids

dark matter

Dark matter is observed due to increasing space between galaxies - the door of which is unseen - caused by dark matter.

Dark matter is only observed due to its gravitational effect.

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Explain the formation of Lunar Eclipse

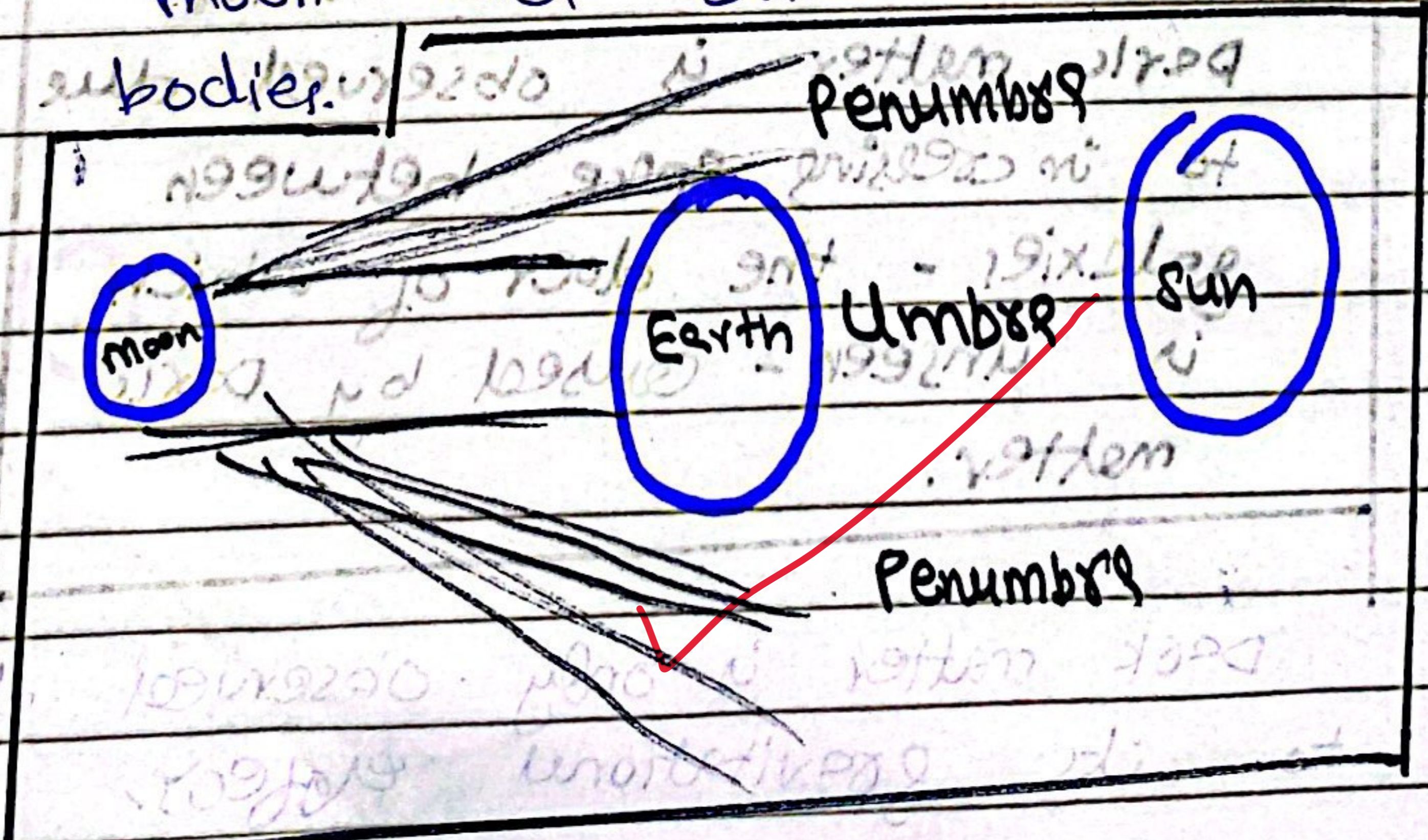
Ans

1. Introduction : Formation of Lunar Eclipse

The formation of Lunar eclipse happen when earth passes from between of the Moon and Sun. The shadow of earth reflects on the surface of moon. It is basically the coming of earth between moon and the sun.

2. Formation of Lunar Eclipse

The formation of lunar eclipse occurs when the three Sun, moon, and earth are very close to each other. In result of the formation - the shadow of earth casts upon the moon and other celestial

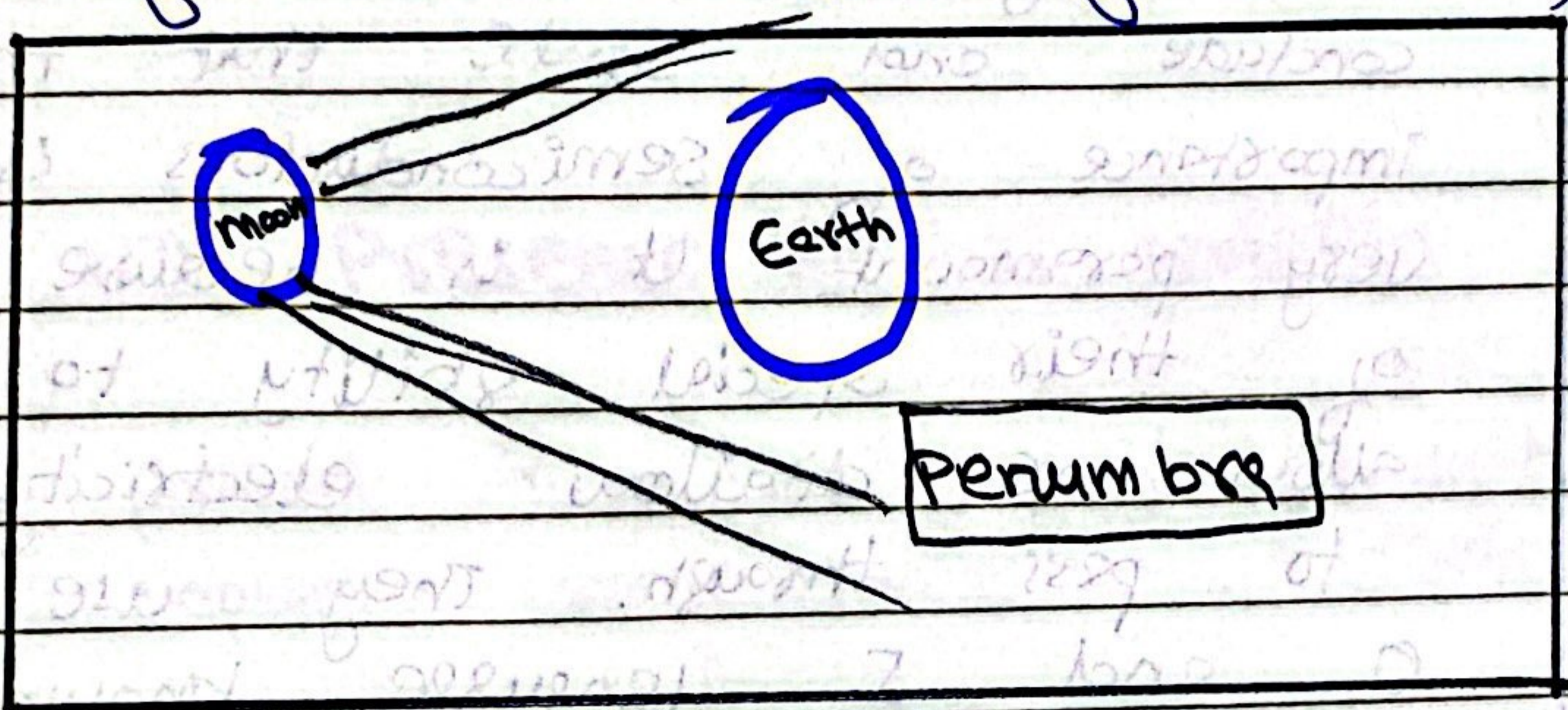


2.1, Umbra

Initial process of Umbra the light is blocked by Earth and (2.2) is initial between both bodies

2.2, Penumbra

Penumbra is the stage where the light finds sideways of crossing



3, Conclusion

The formation of lunar eclipse happen when sun, moon, and the earth are close to each other and the earth passes between sun and moon - causing the lunar eclipse. It happens often times in countries of the world.

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General Science

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"Semi-conductors are the brains of modern Electronics" Explain in detail what this quotation means (CSS-2021)

1. Introduction : Semiconductors

The statement saying that Semiconductors are brains of modern electronics conclude and state that the importance of Semiconductors is very paramount. It is because of their special ability to allow or disallow electricity to pass through. They use 0 and 1 language known as binary. The notion '1' means to allow the electricity, whereas '0' means to disallow it to pass through.

2. Describing how are they brains of modern electronics

because of their special ability of doing useful things.

2.1, Basic building blocks

They help making tiny switches and gadgets called transistors. These little parts are like brains they decide whether allow

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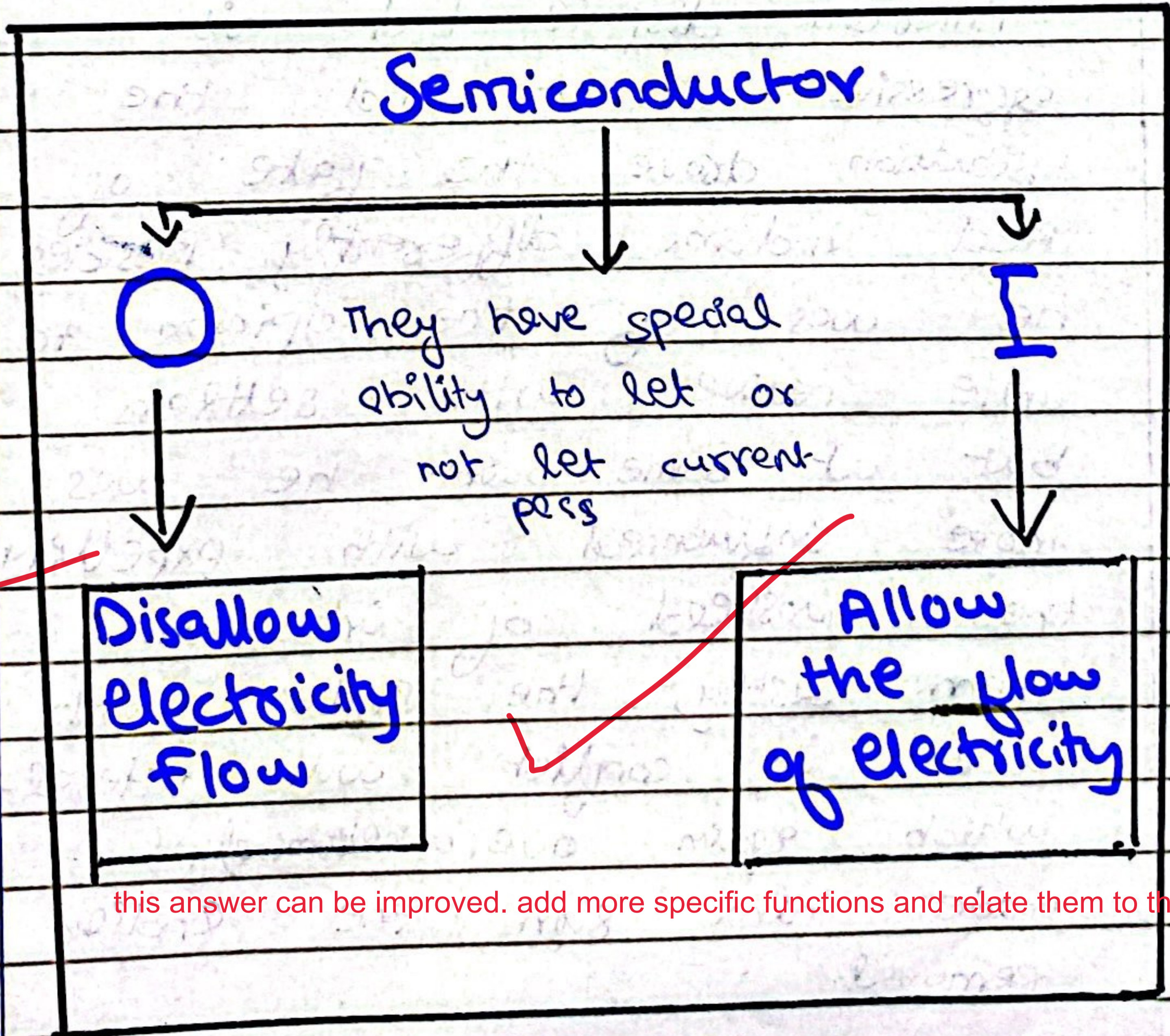
or disallow electricity

2.2, Extreme small computers

Semiconductors help build small computers, and those parts are like brains of our computers. They can do mathematics and such other stuff. They

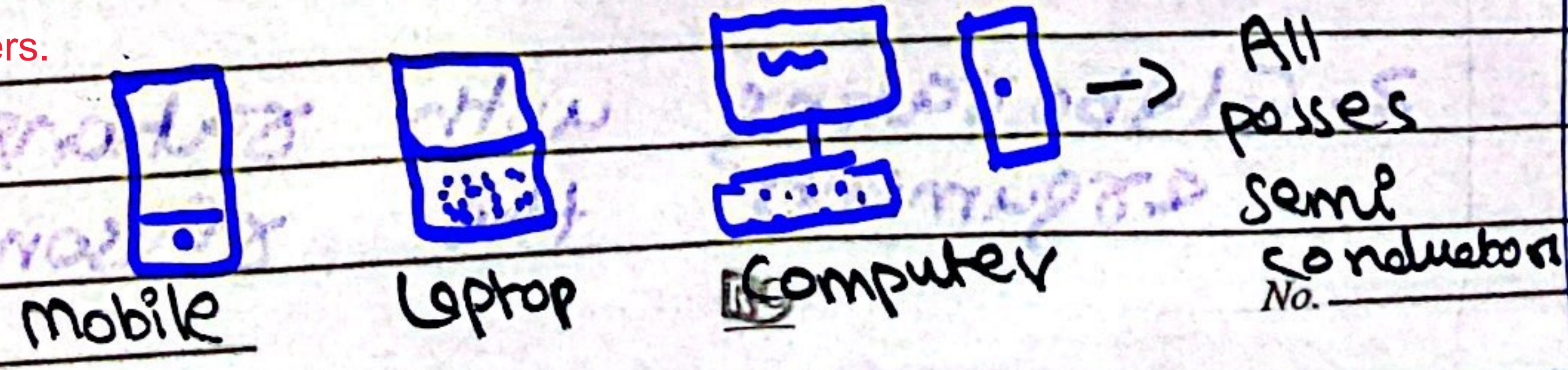
2.3, Presence in all gadgets

These are present in mobile phones, computers, laptops and digitized gadgets people use.



this answer can be improved. add more specific functions and relate them to the statement.

overall good answers.



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