DAY: DATE:

SECTION II:

Subjective

Q#3: Protiens and Carbohydrates

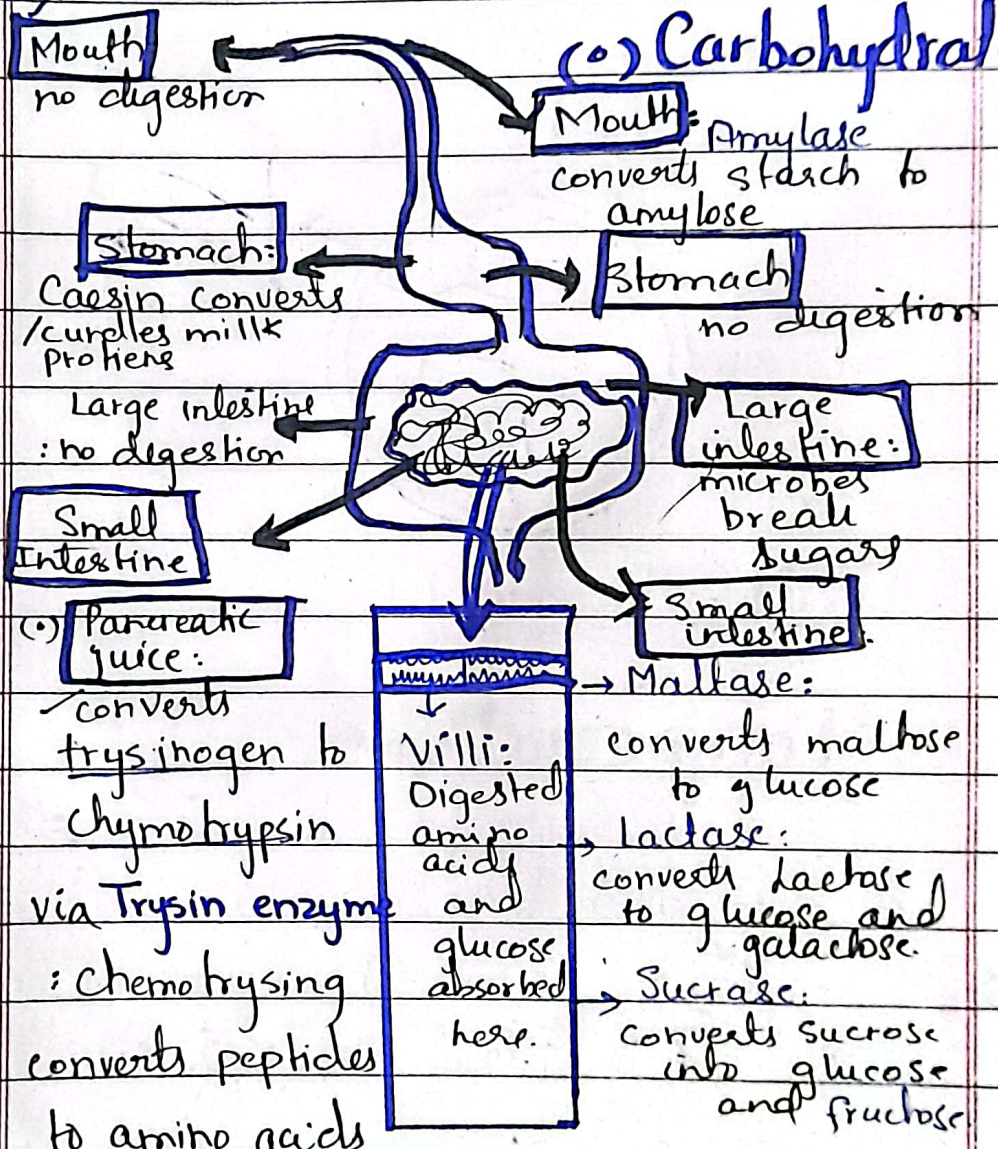
(3.1) Protiens vs Carbohydrates:

Protiens	Carbohydrates
Sub-unit	
Sub-unit of protiens is ~~cas~~ amino acids	Sub-unit of carbohydrates is glucose.
Function	
Used in hormones, enzymes, growth	Used in energy production
Sources	
Meat, fish, eggs, legumes	Bread, Sugar, sweets. fruits
Energ Value	
4 Kcal/gram	4 Kcal/gram

DAY: DATE:

(3.2) Proteins And Carbohydrates: "Digestion"

(•) Proteins



(•) Carbohydrates:

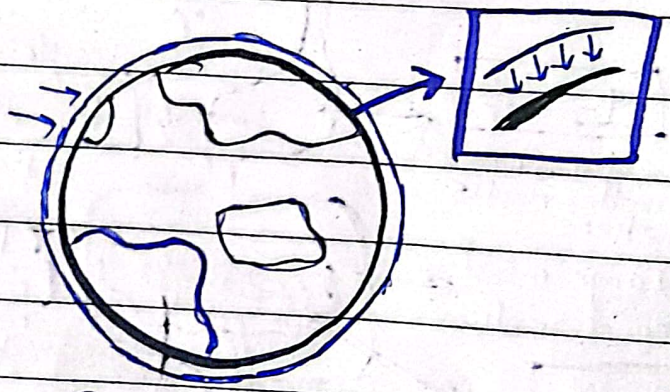
DAY: _____ DATE: _____

Q#3:

(b)

(•) Atmospheric Pressure:

Atmospheric pressure refers to the pressure Earth's atmosphere exerts on it.



Unit: Pascals (Pa).

(•) Temperature:

Temperature refers to the degree of hotness or coldness at a particular time. Temperature is measured in Celcius (C°) or Farenhiet (F°).

DAY: _____ DATE: _____

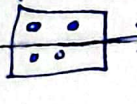
(•) Classification:-

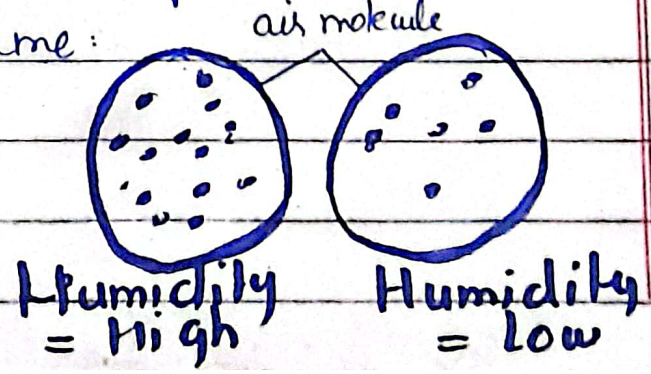
Temperature can be classified into

(1) External	(2) Internal
Refers to the temperature of surroundings.	Refers to body's internal temperature
Factors affecting external temperature:	Factors affecting internal temperatures:
→ Weather	→ External environment
→ Climate change	→ Hot or cold foods: tea or ice-cream
→ Sunshine	→ Fever
→ Clouds	→ Air-conditioner
→ Rainfall	

(•) Humidity:

Humidity refers to the concentration of water vapour in air at a particular time:





DAY: _____ DATE: _____

Instrument of Measurement:

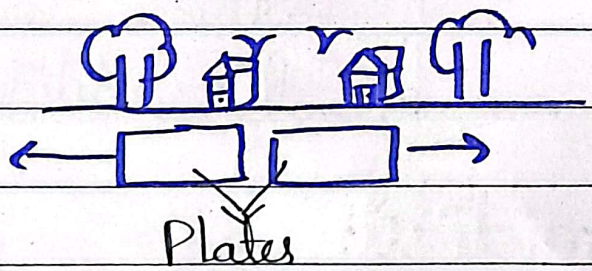
→ Hygrometer.

Q#3:

(c) Ephemeron of Earthquakes:

(i) Causes: Plate Tectonics

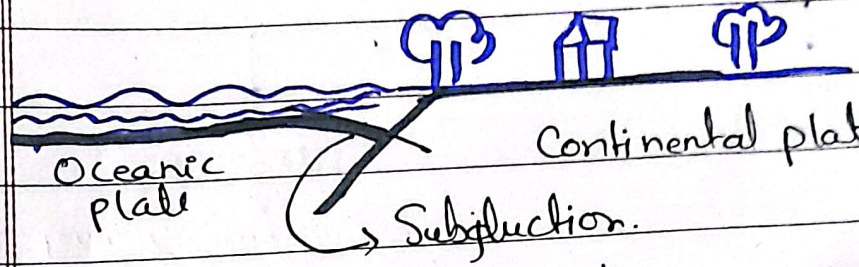
(a) Divergent Plate Boundry:



: Both the plates move apart in this phenomena leading to Earthquake.

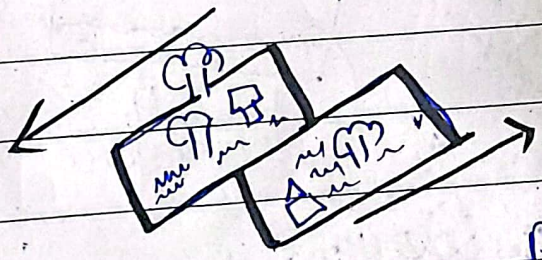
DAY: _____ DATE: _____

(b) Convergent plate Boundry:-



→ In this phenomena, the oceanic plate is subducted beneath the continental plate.

(C) Transform plate Boundry:



: In this phenom -ena, both plates move past each other.

causing earthquake.

DAY: _____ DATE: _____

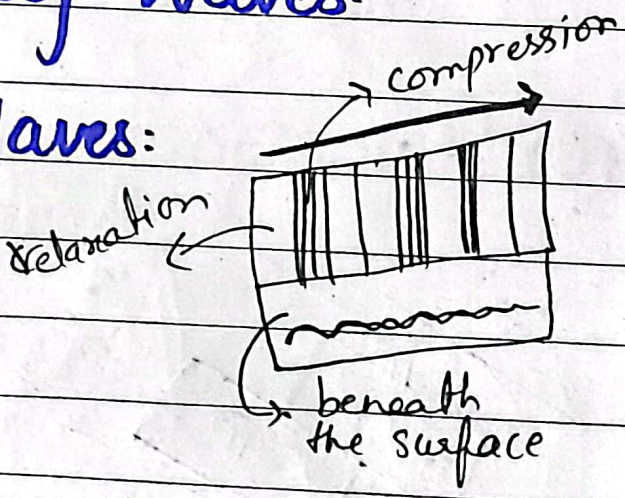
Types of Earthquake Waves:

Body
- P-Waves
- S-waves

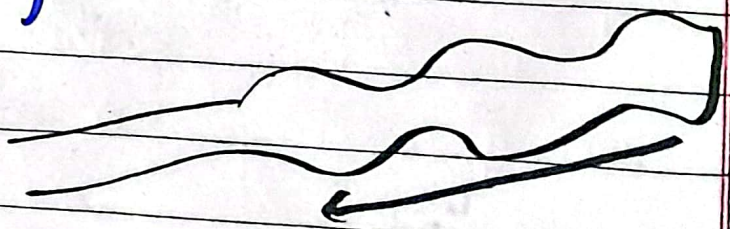
Surface
- Rayleigh waves
- Love waves

Body Waves:

(1) P- Waves:



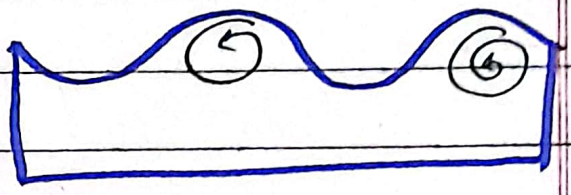
(2) Surface Waves:



DAY:_____ DATE:_____

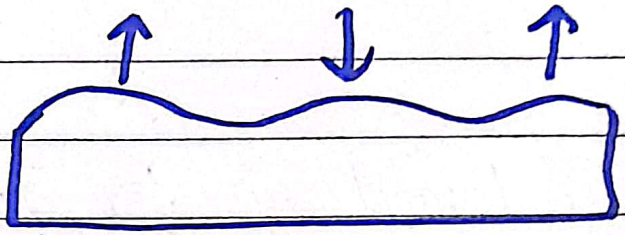
(3) Ray-leigh Waves:

(•) clock-wise wave direction on surface



(4) Love - Waves:

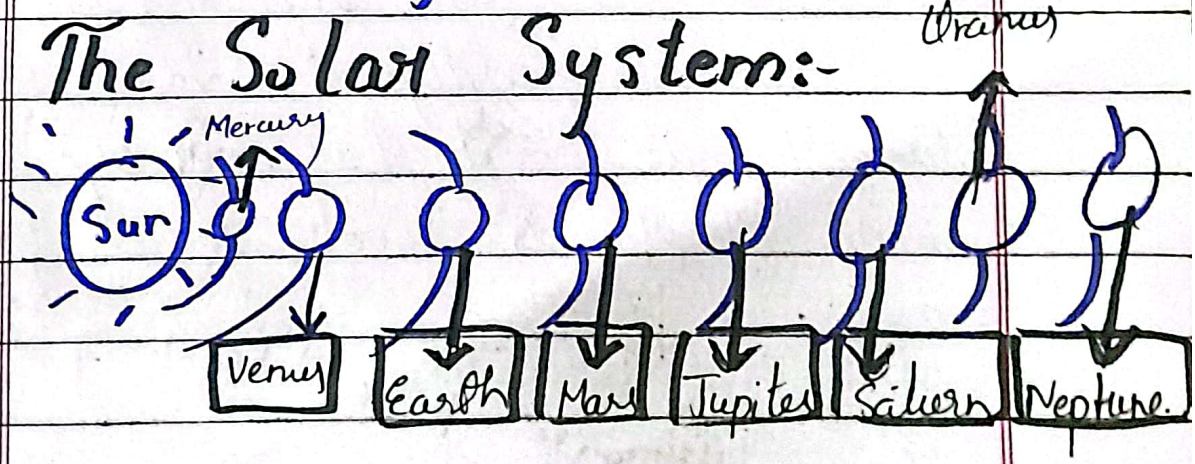
(•) Back and forth wave direction on surface.



Q#4:

(a) Note on Solar System:-

The Solar System:-

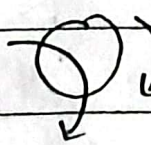


DAY: _____ DATE: _____

→ Note on Solar System:-

Our Solar system is located in the galaxy called milky way. There are 8 planets in our solar system. Pluto was once the 9th planet but was removed from the status of planet due to its dwarf size. The largest planet is Jupiter and the smallest is Venus. Venus is also known as the morning star levening star. Mars is the hottest planet. Neptune is the coldest planet. Only Earth has water and atmosphere to survive. Saturn has the most rings and is made up of dust and ash. Jupiter has the highest gravity due to its largest mass. Earth has only one moon. All planets revolve and rotate:

Rotation



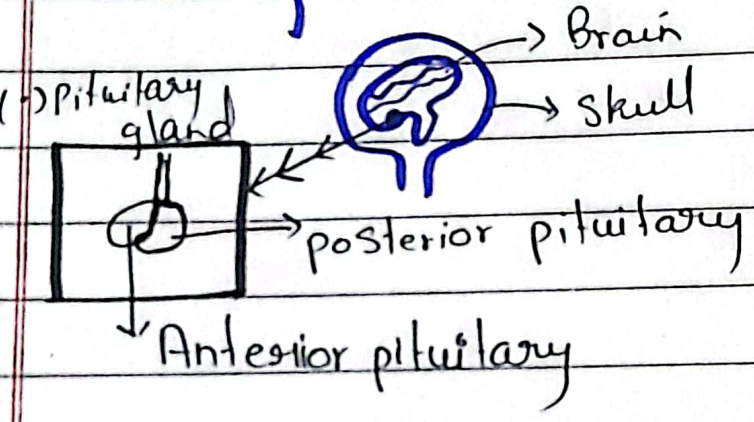
→ Revolving.

DAY: _____ DATE: _____

Q#4:

(b) Pituitary Gland:

Diagram



⇒ Defining pituitary gland:

Pituitary gland is the size of a pea and is located in the lower portion of brain in a sack form.

Importance of Pituitary Glands-

Pituitary gland is known as the master gland of the body for the following reasons:

DAY: _____ DATE: _____

(1) Controls other glands: Adrenal, Thyroid
(2) Controls sexual reproduction and development
(3) Regulates homeostasis
(4) Controls hormone production.

(1) Controls other Organs:

(•) Adrenal glands: Secretes Adrino corticotropic hormone which stimulates release of Adrenaline from adrenal glands.
(•) Thyroid: Releases thyroid stimulating hormone which stimulates release of T3 and T4 controlling body's metabolism.

(2) Controls Sexual Development and Reproduction:-

Releases follicle stimulating hormone and Leutanizing hormone controlling the production of estrogen from ovaries.

DAY: _____ DATE: _____

Anterior	vs	Posterior
Deals with hormone production, growth and Sexual maturation		Deals with chemicals like Vasopressin, ADH and homeostasis.
produce pro-dactin		produce oxyto-in.

Q#4:

(C)

(44) (•) RAM VS ROM

RAM	ROM
Random Access Memory	Read Only Memory
Is Volatile, disappears when computer is shut down.	Is permanent, ensures how computer will operate.
Examples: Google tabs, messages.	Examples: in-built software, recycle bin.

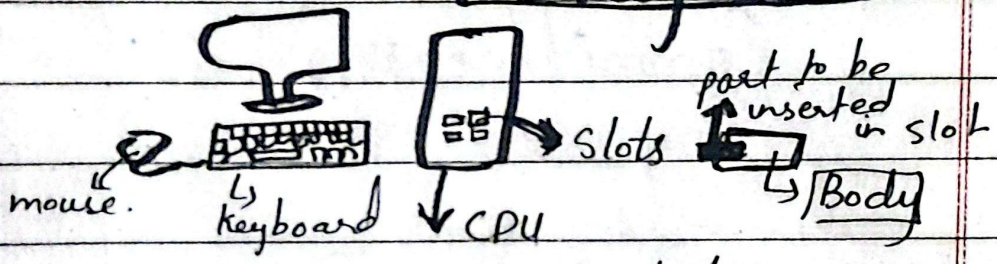
DAY: _____ DATE: _____

(o)

USB: & Mother board:

U·S·B is a portable and detachable device that can store, transfer and carry data without internet or Bluetooth.

Diagram



(·) U·S·B can carry data within its storage limits (2GB, 5GB). It can also be inserted in cars to play song.

(·) It stores both audio and visual data.

(o) Mother board:

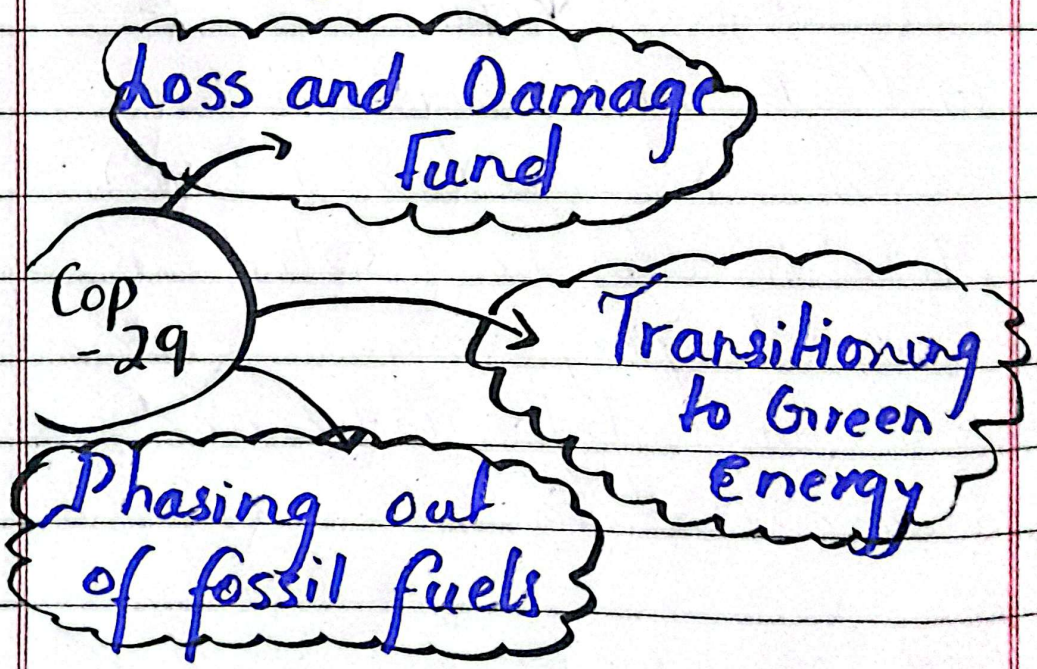
Mother board are the devices by which data and instructions are given to the computer. They include mouse, Keyboard. as shown in above diagram.

DAY: _____ DATE: _____

Q #4:
(d)

Cop-29 aims to limit temperature rise upto 1.5°c.

Commitments by Cop-29:



2024 was the first year, after Industrialisation, above 1.5°C.
Floods in Saudia, heat waves in Saudia Arabia, droughts in

DAY: _____ DATE: _____

Africa and famine were few of the manifestations of the perils of a warmed planet. Cop-29 pledged to disburse $300 billion funds to the developing countries as compensation. However, this was too less compared to $1 trillion lumen demanded by developing countries. Many states like India and Africa left the Cop-29 meeting. The pledge to phase out fossil fuels is yet to be materialised as European Union aims to be fossil free till 2050, China 2045 and Saudia's Vision 2030 is its own way of economic diversification.

DAY: _____ DATE: _____

"Section B:"

Q #6: (b)

⇒ According to Question

- Daughter's age: x
- Father's age: $x(4) = 4x$

⇒ After 5 years:

- Daughter: $x+5$
- father: $4x+5$

⇒ According to Question statement, father will be 3 times daughter's age after 5 years, hence:

- 3(daughter's age) = father's age (after 5 years)
- $3(x+5) = 4x+5$

$3x + 15 = 4x + 5$

$15 - 5 = 4x - 3x$

⟹ $\boxed{10 = x}$

(c) Times father age is to daughter after 5 years:

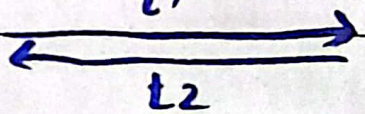
: Father's age / daughter's age

$= \frac{25}{10} = \frac{5}{2} = \boxed{2.5}$

∴ Hence after 5 years, father will be (2) 2.5 times his daughter.

Q#:- 6 (d):

Trains at 23 seconds



: They cover the same distance, hence $d_1 = d_2$.

DAY: _____ DATE: _____

$\Rightarrow$ At 17 seconds,

T_2 (train 2) =

$\because S = \frac{d}{t} = \frac{d}{17}$

$\boxed{17s = d_2}$

$\Rightarrow$ At 27 seconds, t_1

$s = \frac{d}{t} = \frac{d}{27} = 27s = d_2$

$\boxed{27s = d_2}$

$\Rightarrow$ Since $d_1 = d_2$

$27s = 17s$

$\therefore$ Ratio is

$\boxed{1.5}$

Q#7: Average:

let the first digit be $\boxed{x}$

7 consecutive numbers mean each is larger than the previous:

Hence :- $x, x+1, x+2, x+3, x+4, x+5, x+6$

DAY:_____ DATE:_____

Average of these 7 consecutive numbers:

$$20 \Rightarrow \frac{x + x+1 + x+2 + x+3 + x+4 \quad x+5 + x+6}{7}$$

$$20 = \frac{7x + 21}{7}$$

$\because 20 \times 7 = 7x + 21$

$\because 140 = 7x + 21$

$\because 140 - 21 = 7x$

$\because \frac{119}{7} = \frac{7x}{7}$ $\quad \boxed{x = 17}$

Largest number:

$x + 6 \therefore 17 + 6$

$\boxed{= 27}$

DAY: _____ DATE: _____

Q #7:

(b)

Family true

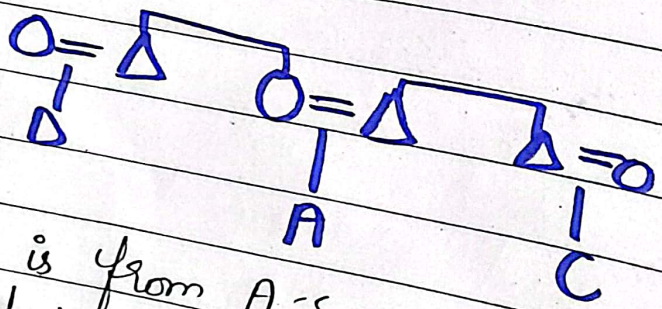
(•) A is liked to both C and D

(•) D and C are not from same parents

(•) C is closely related to A's father, is a nephew, hence son of A's brother

(•) D could hence be A's father's nephew from another sibling, or A's cousin from his mother's siblings.

Situation 1:

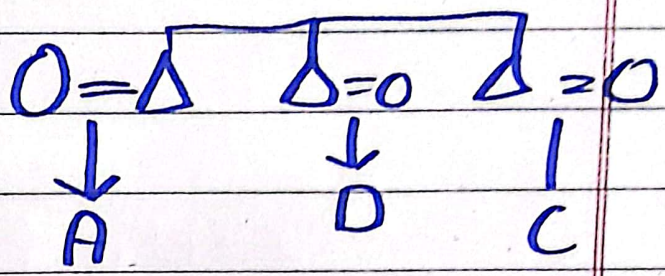


* D is from A's maternal side and is related to C by affinal (marriage between families) bond.

4 Kcal 1gram

DAY:_____ DATE:_____

(2) Situation 2:



* D is the son/daughter of the other sibling of A and hence be C's cousin.