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Class :- IX D/B

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PJ-1 A

- 1) d) Low temperature, high pressure
- 2) d) Velocity of a moving body is its speed in a given direction.
- 3) b) Equal to 1 or less than 1
- 4) a) The inner membrane of mitochondria is folded as it provides more surface area for ATP synthesis.
- b) ~~B~~ Plastids are able to make their own ~~proti~~ proteins because they contain small, circular DNA, ribosomes and the enzymes required for the synthesis of proteins.
- 5) ~~Q~~ Given,

Initial velocity (u)	=	0 m/s^{-2}
Acceleration (a)	=	4 m/s^{-2}
Time period (t)	=	10 sec

Using second equation of motion i.e.

$$s = ut + \frac{1}{2} at^2$$

where,

s = distance / displacement

u = initial velocity

a = Acceleration

t = time taken

Substituting the values,

~~$$s = 0 \times \frac{1}{2} (4)(4)$$~~

$$s = 0 \times 10 + \frac{1}{2} [(4)(10)^2]$$

$$s = 0 + \frac{1}{2} \times 400$$

$$s = 200 \text{ m}$$

\therefore the car will ~~cover~~ cover a distance of 200 m after 10 sec

6) a) Perfume has a higher degree of vaporization, and its vapor diffuses into the air easily that's why we can smell the perfume sitting several metres away

b) We feel cool on touching an ice cube because of the melting and evaporation of the ice. When we touch the ice the ice quickly ~~abs~~ absorbs the heat of our fingers by latent heat of fusion and we feel cool.

8) ~~States~~ The characteristics of the particles are :-

- i- they have ~~intense~~ space between their particles
- ii- they occupy space and have ~~a definite shape~~
- iii- they are ~~continuously~~ continuously moving.

Aim of the activity

To show that particles of matter occupy space

Materials Required

A Box

A table

Procedure

When we put the box on a table it occupies some space on that table, where as if we

~~the~~ ~~book~~ the air if occupies space

Conclusion

Hence by this activity we came to know that particles of matter occupy space.

9) i) Membrane biogenesis ~~was~~ is ~~for~~ the process of in which the membrane is made by the smooth endoplasmic reticulum

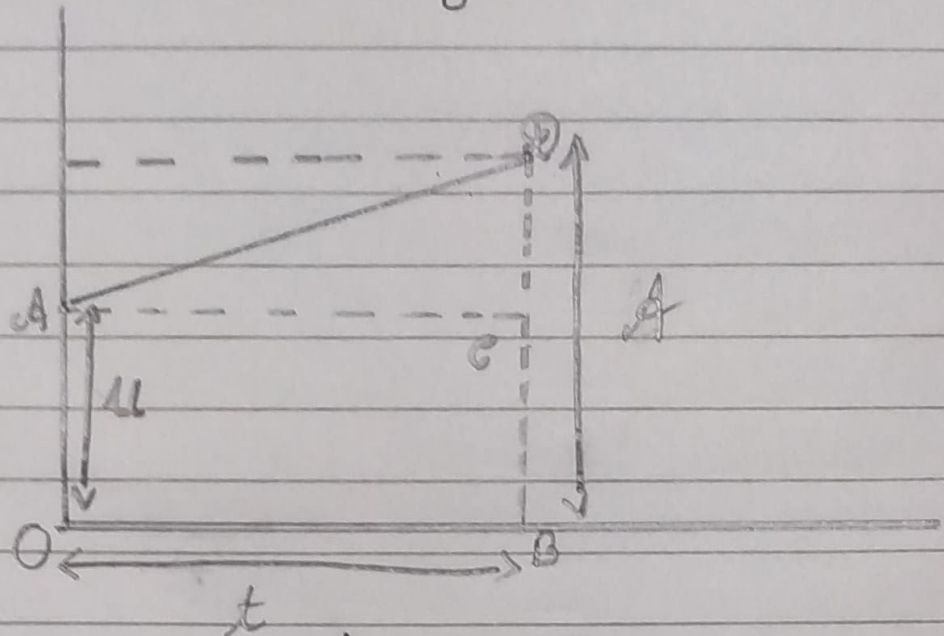
ii- a) When a drop of concentrated sugar solution is placed on a Rhoe leaf pul, the cells of the leaf get ~~shrink~~ shrink because the sugar ~~of~~ contain is higher in outside than inside of the water will rush out of the cell.

b) This phenomenon is known as osmosis

c) ~~if~~ ~~the~~ No, the same will not happen if the leaf was boiled because ~~the~~ the when we boil ~~something~~ something the cell of that substance dies because of excess heat.

iii. Division of labour exist even at intermolecular level ~~too~~ ~~also~~ because there are many cells inside of our body which does the same thing.

7)



$$S = \text{area under } \Delta ACD + \text{area under } COBB$$

also,

$$S = (OA \times OB) + \frac{1}{2} (CD \times OB)^2$$

Substituting the values,

$$OA = u$$

$$OB = t$$

$$CD = a$$

$$S = ut + \frac{1}{2} at^2$$