

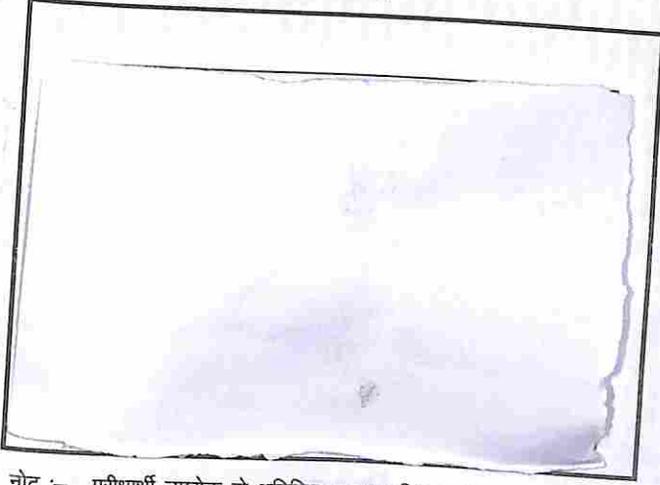


माध्यमिक शिक्षा बोर्ड, राजस्थान, अजमेर

माध्यमिक परीक्षा

क्रम संख्या

(परीक्षार्थी द्वारा स्वयं भरा जाना चाहिये)



नोट :- परीक्षार्थी उपरोक्त के अतिरिक्त उत्तर पुस्तिका के अन्य किसी भी भाग में अपना नामांक नहीं लिखें।

माध्यम - हिन्दी अंग्रेजी

विषय Science

परीक्षा का दिन 21 March 2025 Friday

दिनांक 21 March 2025

नोट :- परीक्षार्थी के लिए आवश्यक निर्देश इस पृष्ठ के पिछले भाग पर उल्लेखित हैं। जिन्हें सावधानी पूर्वक पढ़ लें व पालना अवश्य करें।

परीक्षक हेतु निर्देश :- (1) परीक्षक को उपरोक्त सारणी अनुसार प्राप्तांक भरना अनिवार्य है, अन्यथा नियमानुसार दंडित किया जायेगा।

(2) परीक्षक उत्तर पुस्तिका के अन्दर के पृष्ठों के बायीं ओर निर्धारित कॉलम में लाल इंक से अंक प्रदत्त करें।

(3) कुल योग भिन्न में प्राप्त होने पर उसे पूर्णांक में ही परिवर्तित कर अंकित करें (उदाहरणार्थ: 15 ¼ को 16, 17 ½ को 18, 19 ¾ को 20)

प्रश्नवार प्राप्तांकों की सारणी (परीक्षक के उपयोग हेतु)			
प्रश्नों की क्रम संख्या	प्राप्तांक	प्रश्नों की क्रम संख्या	प्राप्तांक
1	18	19	4
2	6	20	4
3	12	21	
4	2	22	
5	2	23	
6	2	24	
7	2	25	
8	2	26	
9	2	27	
10	2	28	
11	2	29	
12	2	30	
13	2	31	
14	3	योग	80
15	3	प्राप्त अंकों का कुल योग (Round off)	
16	3	अंकों में	शब्दों में
17	3	80	Eighty
18	4		

परीक्षक के हस्ताक्षर संकेतांक 53116

प्रमाणित किया जाता है कि इस उत्तर पुस्तिका के निर्माण में 60 जी.एस.एम. ईको मैपलिथो कागज ही उपयोग में लिया गया है। 180/2025



Section - 'A'

1.	Q. No.	A. No.	Answer
	i)	(B)	Thyroid gland.
	ii)	(A)	Planaria
	iii)	(C)	Excretion
	iv)	(D)	Cytokinin
	v)	(A)	1:2:1
	vi)	(D)	Producers
	vii)	(C)	$R = 2f$
	viii)	(A)	Red.
	ix)	(B)	2. Ω
	x)	(A)	Direction of mag. current
	x)	(D)	Silver.



परीक्षक द्वारा प्रदत्त अंक	प्रश्न संख्या	परीक्षार्थी उत्तर
	xi)	(A) Direction of Current
	xii)	(D) into the page
	xiii)	(A) H_2
	xiv)	(B) 7
	xv)	(D) (iii) and (iv)
	xvi)	(B) 5
	xvii)	(C) C_2H_6
	xviii)	(A) 4

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2. Fill in the Blanks :

i) i) A feedback mechanism regulates the action of a hormone.

ii) The web made by the branching food chain is called 'food web'.



iii) Electric wires are made up of copper because it is a good conductor of electricity.

iv) By increasing the number of turns of wire in the coil, the strength of magnetic field produced by a current carrying circular coil is increased.

v) The name of compound obtained on burning of magnesium ribbon in air is magnesium oxide (MgO).

vi) Gold is more ductile metal between gold and iron.

3. i) Respiration :- The breaking down of food particle in the presence of



Oxygen to form energy is known as respiration.

ii) Cerebellum present in Hind brain controls walking in straight line, riding bicycle and picking up a pencil.

iii) An example of bisexual flower is hibiscus.

iv) In Mendel's experiment purple flower was the contrasting pair character for white pea flower of pea.

v) Convex mirror is used as rear-view (wing) of a vehicle.

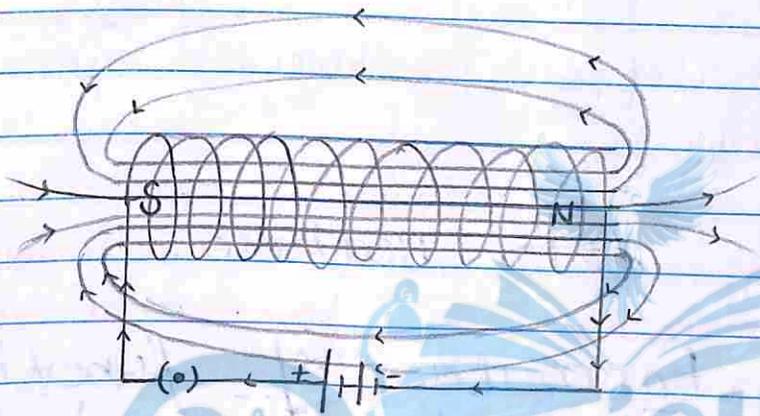
vi) Myopia (near-sightedness) :- in myopic person is able to see the near objects but unable to



See far objects.

vii) The potential difference is measured by Volt meter which is connect parallel in circuit.

viii)



magnetic field lines of a current carrying solenoid.

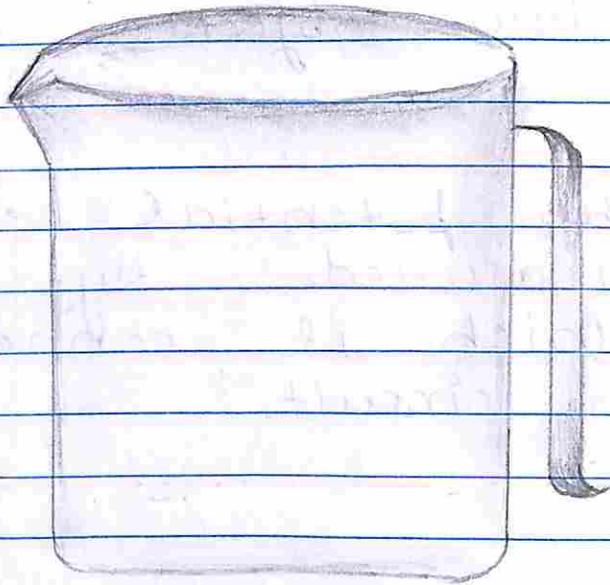


chemical name of compound (X) in the above reaction is Calcium hydroxide
 $\text{Ca}(\text{OH})_2$.

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x)



A Beaker.

xi) Formula of functional group present in carboxylic acid is :-



Suffix :- Oic Acid.

xii) When the aqueous solution of acid is put in electric circuit, the bulb ~~is~~ connected in circuit starts glowing. It shows the property of the aqueous solution of acid to

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conduct electricity because the aqueous solution of acid has H^+ ions.

Section :- 'B'

4.	Aerobic respiration	anaerobic respiration.
	<ul style="list-style-type: none"> • Done in the presence of oxygen. • The byproduct is CO_2. 	<ul style="list-style-type: none"> • Done in the lack or absence of oxygen. • The key product is Lactic acid or Ethanol.
	• Eg :- humans	• Eg :- Yeast, muscle

5. Phototropic Movement :- It is a type of tropic movement in



in which the movement of plant or growth is in the direction of photo (sun light) or in the against of light.

positive phototropism is done in the stem or shoot part

but negative phototropism is done in roots.

6. Functions of organs found in male reproductive system :-

• Testis :- It is a bag like structure which is surrounded by scrotum which makes male germ cell (sperm).

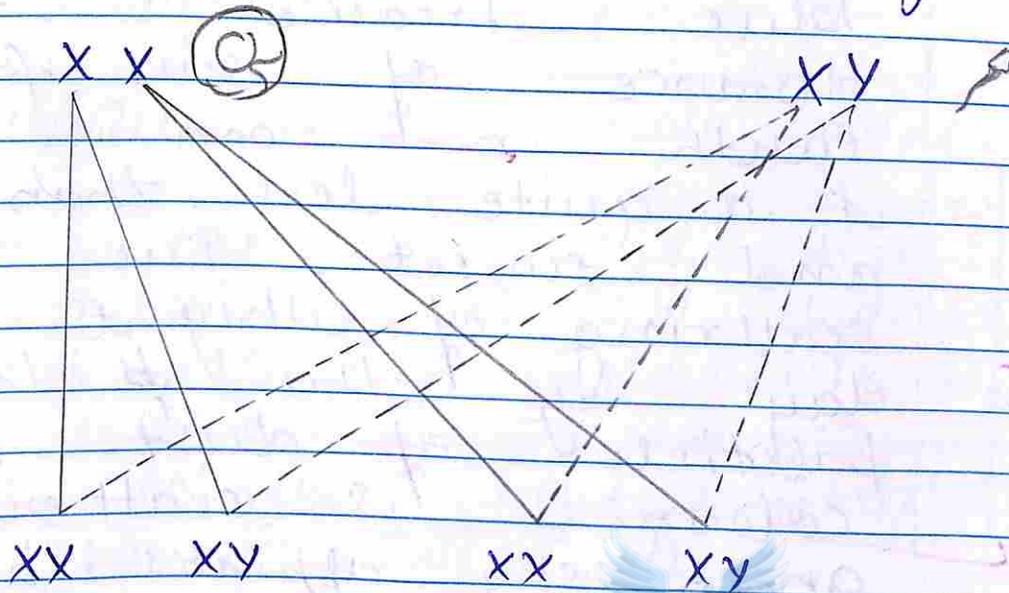
• Penis :- It is a muscular part which is out

of the abdominal cavity. It provides the pathway to sperm to reach in the uterus.



7. Female Gametes

Male gametes



XX :- Girl

XY :- Boy

8. Refractive index :- The speed of light of medium 2 with respect to medium 1 is Refractive index.

Formula :- $\frac{\text{Velocity of light in medium 2}}{\text{Velocity of light in medium 1}}$

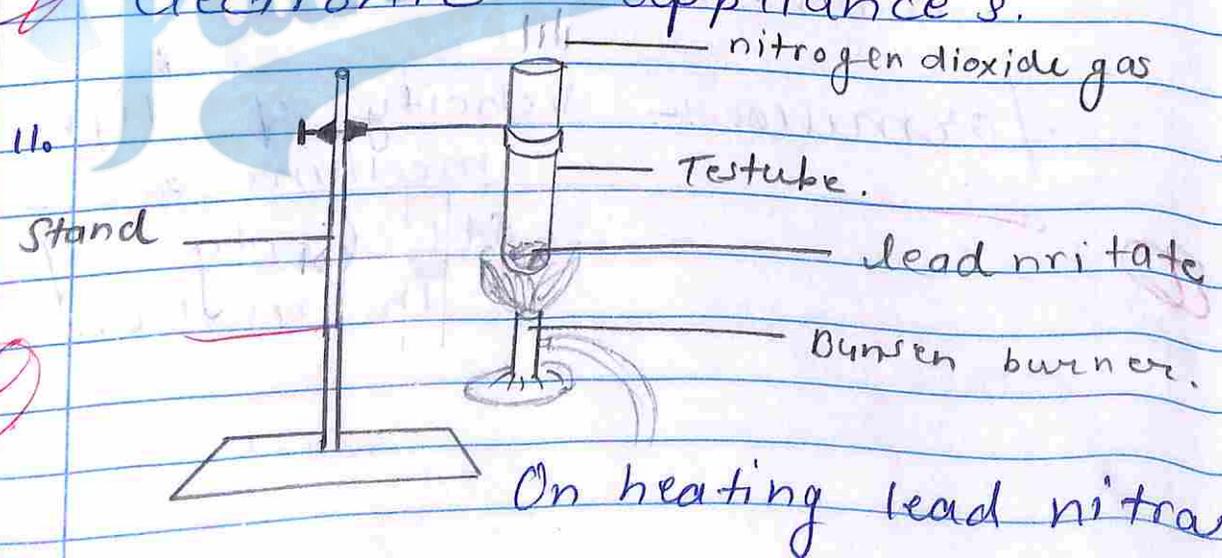
Velocity of light in medium 1

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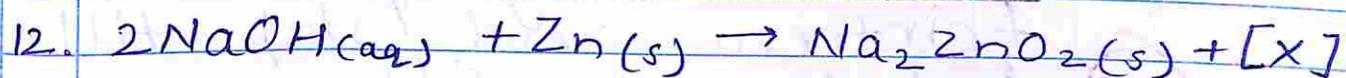
9. A clear sky appear blue because the distance of sun from earth in ~~noon~~ is a quite less than morning and sunset. Due to scattering of white light in day by the ~~large~~ large particles of dust blue colour is scattered and sky appears blue.

10. Electric fuse is used in domestic electric circuits because if there is ~~accident~~ hike in the voltage, fuse will melt and prevent the electronic appliances.





nitrogen dioxide gas is evolved.



In the above reaction the compound (X) is :- Hydrogen gas and its formula is :- $\text{H}_2(\text{g})$

13. If copper is kept in moist carbon dioxide then

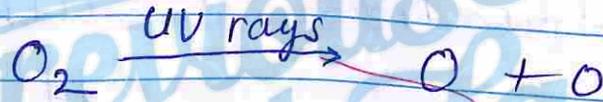
Section :- 'C'

14. Menstruation :- When the egg is released from ovary and if it is not fertilized then the inner lining of blood in uterus shed off with egg through vaginal passage. This is known as menstruation.



Mensuration occurs once in a month. It starts from the age of around thirteen and stops till fortyfive to fifty.

15. When UV (Ultra violet) rays enter earth's atmosphere it breaks down the oxygen molecule and the broken down oxygen molecule combines with oxygen to form ozone.



Ozone layer protects us from harmful UV rays.

16. Heating effect of electric current :- When the current passes through a conductor



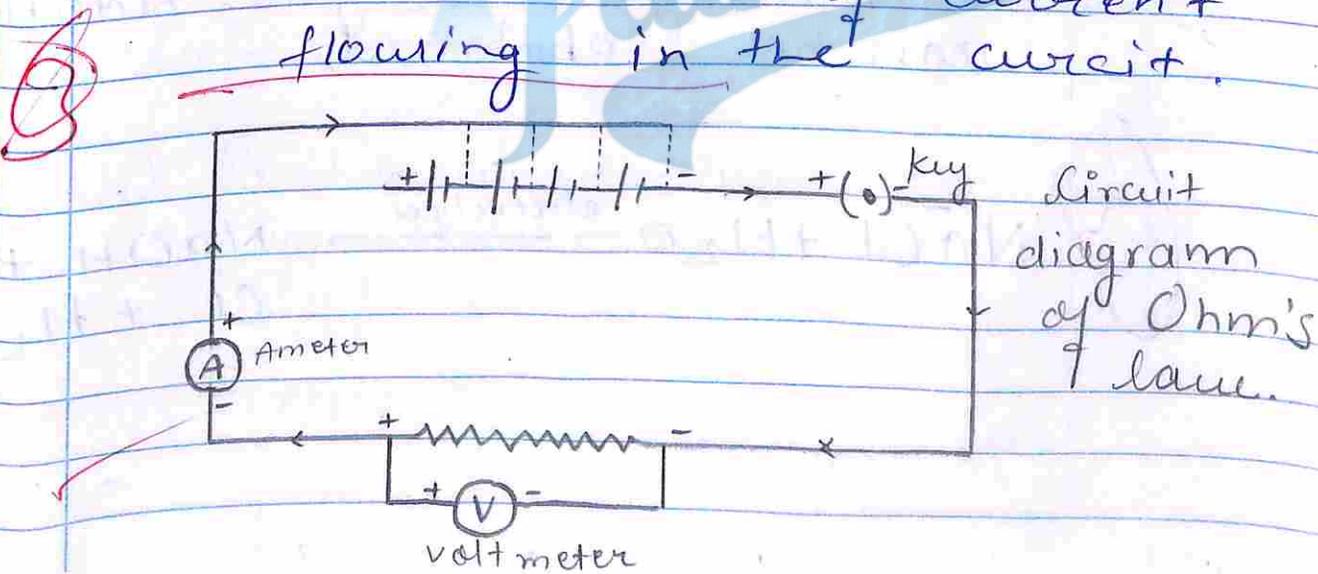
Due to resistance the part of some electricity is converted into heat. This is called heating effect of electric current.

Factors effecting the heat produced in the resistor.

1) Time :- The duration of the time in which current pass.

2) Resistance :- The resistance of conductore cuire.

3) Current flowing :- The voltage of current flowing in the circuit.

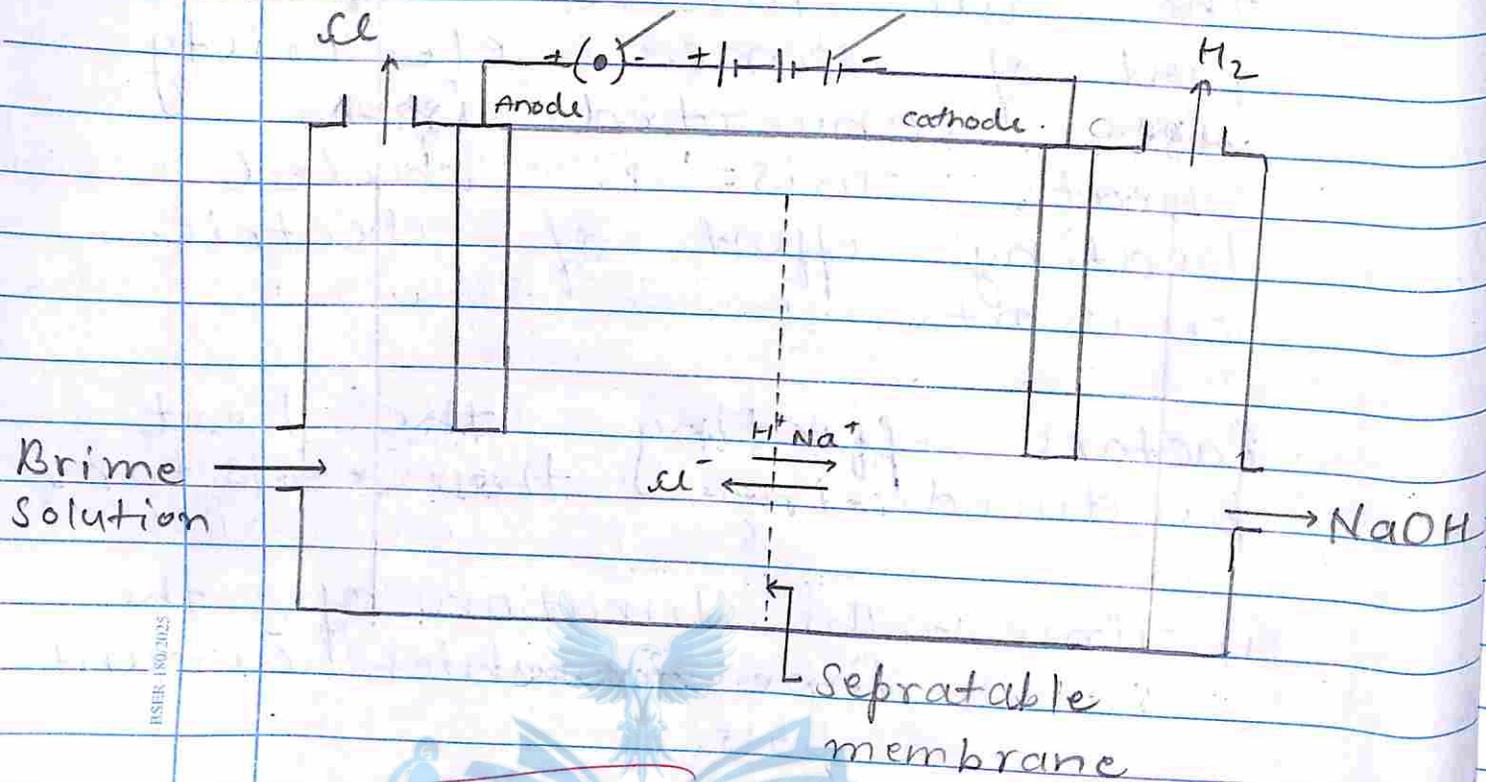




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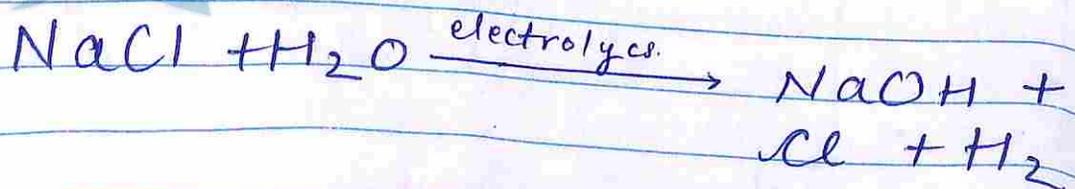
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17.



Chlor - Alkali Process

By the electrolysis of the brine solution of the chlorine gas, H₂ gas, NaOH can be obtained.



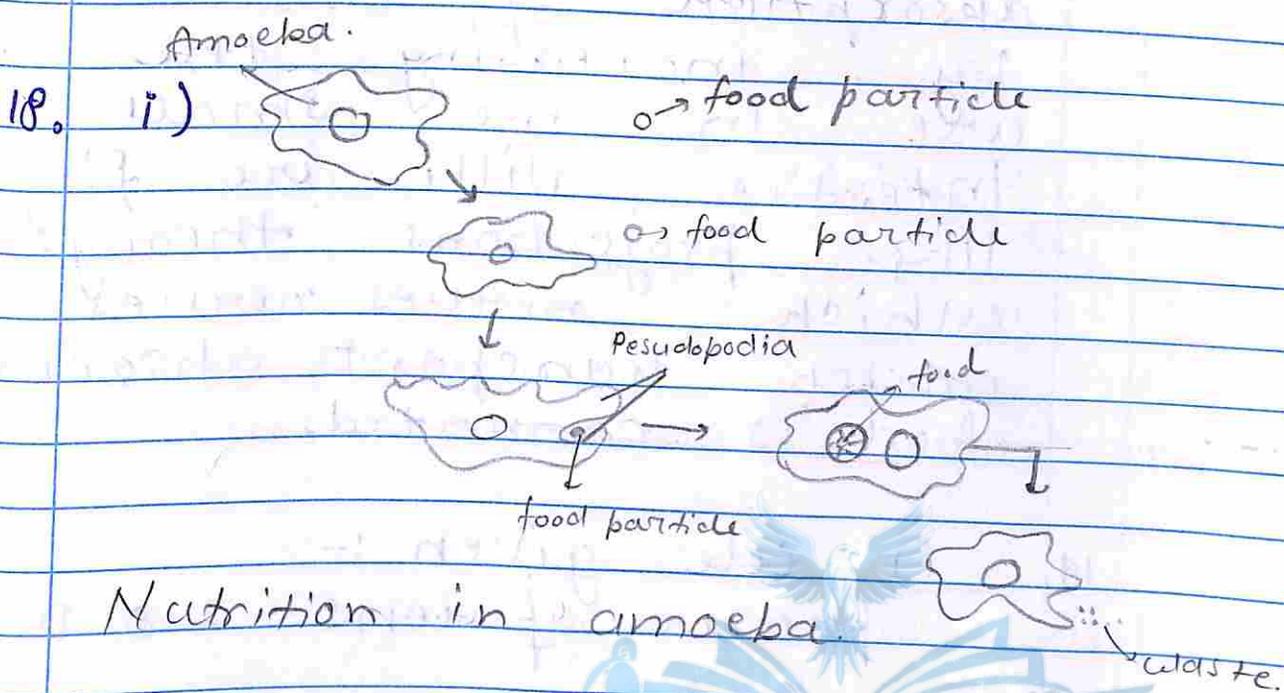


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प्रश्न संख्या

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Section - 'D'



Nutrition in amoeba.

In amoeba, food is taken by cell membrane by its false feet (pseudopodia) and then a food vacuole is formed in which food is digested and assimilated and then waste is excreted.

ii) Protein digestive enzyme produced by pancreas:-
Trypsin.



iii) Villi - It plays an

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Important role in the absorption of nutrients by increasing the surface area in the small intestine. Villi are finger like projections through which ~~nerves~~ ~~nerves~~ ~~nerves~~ which transport absorbed food is connected.

19. i) ~~the~~ given :-
power of lens = 2.0 D.

We know that $P = \frac{1}{f}$

$$\Rightarrow 2.0 = \frac{1}{f} \Rightarrow f = \frac{1}{2.0} = f = \frac{1}{2}$$

$$f = 0.5 \text{ m}$$

So the focal length of the lens will be 0.5 m.
→ Image formed will be virtual and erect.



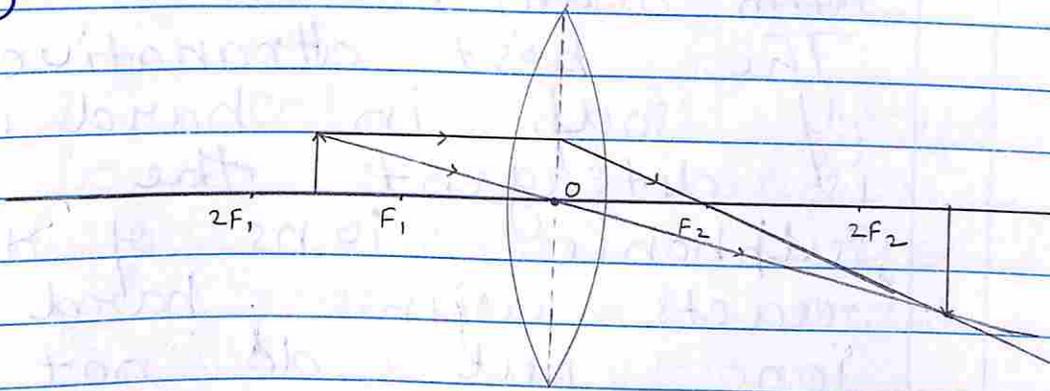
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object between $2F_1$ and F_1 ,

(ii)



Size :- Enlarge.

nature :- Real and Inverted.

Position :- behind $2F_2$.

20 On applying soaps the hydrophilic end of micelle stuck in the dirt and the hydrophobic hydrophilic ion head is towards the water. when we rub cloth the soap hydrophilic end take the dust and clean the cloth.

but in hard water the soap's sodium and potassium ions reacts with ~~hard water's~~ ion to form



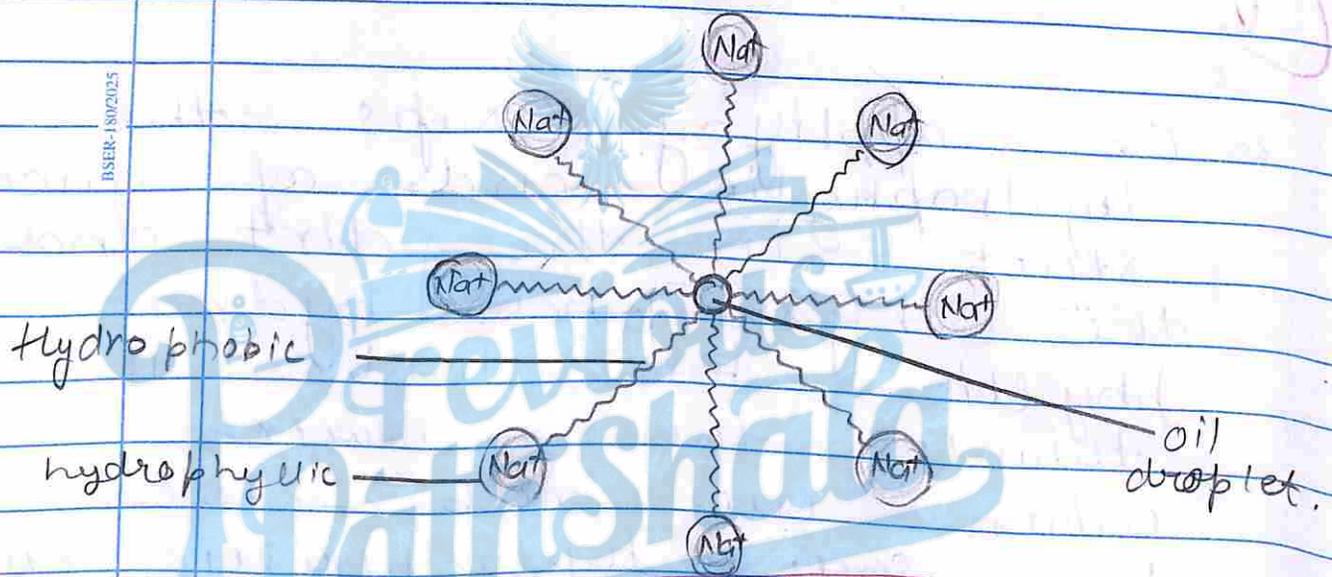
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~~Form~~ Scum.

The best alternative of soap in hard water is detergent. The sulphonic ions of detergent reacts with hard water ions but do not form scum and the cloth become clean.



Q Structure of micelle.



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Section :- B.

13. (a) If copper is kept in moist carbon dioxide then this it will react and form a thick oxide layer of copper oxide of greenish colour which become black after a time.

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-----END-----

Thank You.

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[Signature]