



શ્રી વંદનમ્ એજ્યુકેશન એન્ડ ચેરીટેબલ ટ્રસ્ટ સંચાલિત
શ્રી વસિષ્ઠ વિદ્યાલય

મુ. પો. વાવ, ને. ઠા. નં.-48, કામરેજ, જિ. સુરત.

26
બેઠક નંબર

ઉત્તરવહી

Unit - 1 પરીક્ષા - 2026

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દોરણ : 10th વર્ગ : F

વિષય : Science તારીખ : 09-07-26

મુખ્ય ઉત્તરવહી	પુરવણી	કુલ
1	0	1

નિરીક્ષકની સહી : _____

પરીક્ષકની સહી : _____

વિભાગ / પ્રશ્ન	ગુણ	મેળવેલ ગુણ
OMR		
1		24
2		17.5
3		17.5
4		19.5
5		10.5
કુલ		79

પરીક્ષાલક્ષી સૂચન : જરૂર હોય લેટલી જ પુરવણી લેવી.
અહીંથી જવાબ લખવાનું શરૂ કરવું

Section - A

(24)

- (1) → (C) white
- (2) → (A) lemon
- (3) → (C) 1 & infinity
- (4) → (C) +20cm
- (5) → (D) Absorption
- (6) → (D) Violet
- (7) → blue
- (8) → Chlorine
- (9) → center of curvature

$$\boxed{} + \boxed{} + \boxed{} + \boxed{} + \boxed{} = \boxed{}$$

(10) → Cataract

(11) → Exothermic

(12) → Retina

(13) → True

(14) → False

(15) → False

(16) → False

(17) → Silver Sulfide (Ag_2S)

(18) → Na_2ZnO_2

(19) → At the center of curvature (c)

(20) → Angle from which incident ray deviates after Refraction in prism is called Angle of deviation

(21) → (B) Grasshopper

(22) → (A) Frog

$$\boxed{} + \boxed{} + \boxed{} + \boxed{} + \boxed{} = \boxed{}$$

Q3) → (B) Plants and Animals

Q4) → (C) Temperature, Rain and wind

Section-B

(17.5)

→ (25) → A Reaction in which high Reactive Element displacement a less Reactive Element is called Displacement Reaction

→ Example: $Zn + CuO \rightarrow ZnO + Cu$

→ In above example Zn is high Reactive than Cu So, Zn displaced Cu

→ Example: $Hg + CuO \rightarrow HgO + Cu$

→ (26) → Calcium CaO is used to make Cement

→ Reaction to make CaO:-

→ $CaCO_3 \xrightarrow{\Delta} CaO + CO_2(g)$

↓
used to make Cement

→ (27) → The indicator which change its colour when is React with acid or base is called olfactory Indicators

→ Example: clove oil, Vanilla, onion etc.

→ when HCl was spray on clove oil its smell Remain unchanged

$$\boxed{} + \boxed{} + \boxed{} + \boxed{} + \boxed{} = \boxed{}$$

→ But when we spray NaOH its smell was disappeared

(31)	Real Image	Virtual Image
- It is always <u>Inverted</u>	- It is always <u>Erect</u>	
- Its magnification is always <u>Negative</u>	- Its magnification is always <u>Positive</u>	
- It is formed by <u>concave Mirror</u> & <u>convex lens</u>	- It is formed by <u>convex Mirror</u> & <u>concave lens</u> (It is formed in <u>concave Mirror</u> & <u>convex lens</u> in special case)	
- It is obtained <u>on screen</u>	- It is <u>not</u> obtained <u>on screen</u>	

(32) The characteristics of the image formed by a plane mirror are as follows:-

→ Image is always virtual & Formed behind the mirror

$$\boxed{} + \boxed{} + \boxed{} + \boxed{} + \boxed{} = \boxed{}$$

→ It is the same size as the object.

→ The distance from Mirror to object (u) is same equal to distance from Mirror to image (v)

→ Image is laterally inverted, left seem to be Right and Right seem to be left.

→ Image is always erect.

→ (34) → curd and sour substances not kept in brass and copper vessels because,

→ curd and sour substances contain Acid.

→ And when Acid react with brass & copper which are metal it become toxic.

improper

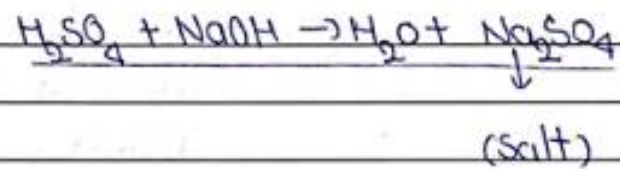
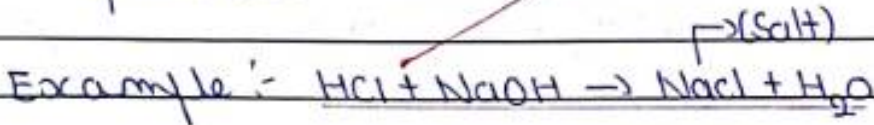
→ Therefore, curd & sour substances Not kept in brass & copper vessels.

→ (35) The process of mixing acid or base with water to decrease due to which concentration of H^+ & OH^- ions decrease is called dilution.

- For Example:-
- $\text{HCl} + \text{H}_2\text{O}$
 - $\text{NaOH} + \text{H}_2\text{O}$
 - $\text{H}_2\text{SO}_4 + \text{H}_2\text{O}$
 - $\text{KOH} + \text{H}_2\text{O}$

→ In above Reaction H_2O is in Major (large) quantities

→ (36) The Process of mixing acid & base to formed a salt is called Neutralization process.



→ (37) Given $P = +4 \text{ D}$

$P = \frac{1}{f}$

$4 = \frac{1}{f}$

$f = \frac{1}{4}$

$f = 0.25 \text{ m}$

$f = +25 \text{ cm}$

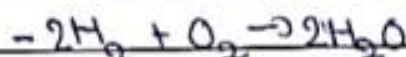
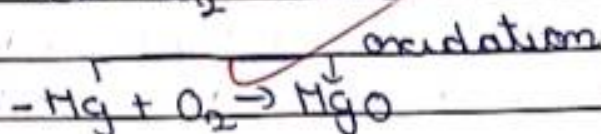
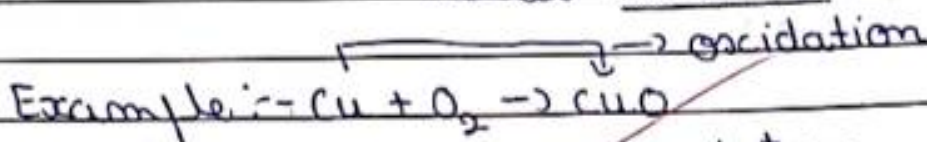
- The lens will Need the Convex lens

/ Section - c /

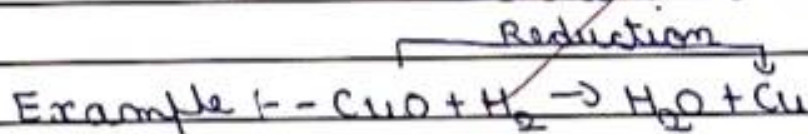
17.5

→

(98) Oxidation:- The process in which Oxygen was add or Hydrogen Remove is cal in the reaction is called oxidation



Reduction:- The process in which oxygen was removed or hydrogen is add in the Reaction is called Reduction



Redox ?

(2) extra

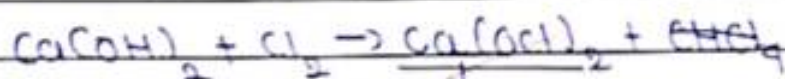
+ + + + =

(39) Common Name :- Bleaching Powder

Chemical Formula :- $\text{Ca}(\text{OCl})_2$

Preparation:-

- when Cl_2 gas was passed from slaked lime ($\text{Ca}(\text{OH})_2$) it formed $\text{Ca}(\text{OCl})_2$
- Bleaching powder chemical name is calcium oxychloride.
- Reaction:-



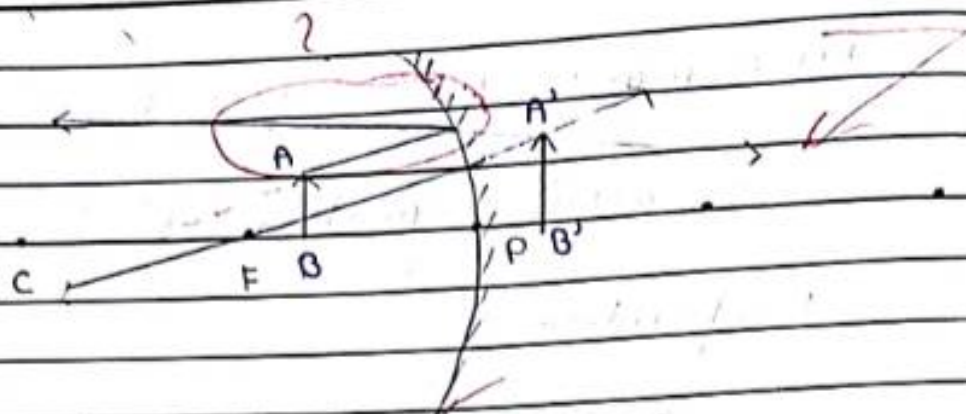
↓
bleaching
Powder

uses:-

- used in bleaching of cloths in laundries
- used ~~as a~~ in a laboratory
- used to make water germs free.

→

(40)



Object :- Betⁿ F & P

Image :- behind the mirror

Virtual & Enlarged

- Virtual & erect

- Enlarged

→

(41) - Myopia is also known as Near-Sightedness

- In Myopia Eyes Person can see near object ~~clearly~~ clearly.

- but he/she couldn't see far object clearly.

- In Normal eye far point is ∞ . but in Myopia far point same near so, it is less than ∞

- In Myopia Image was ~~not~~ formed in front of Retina.

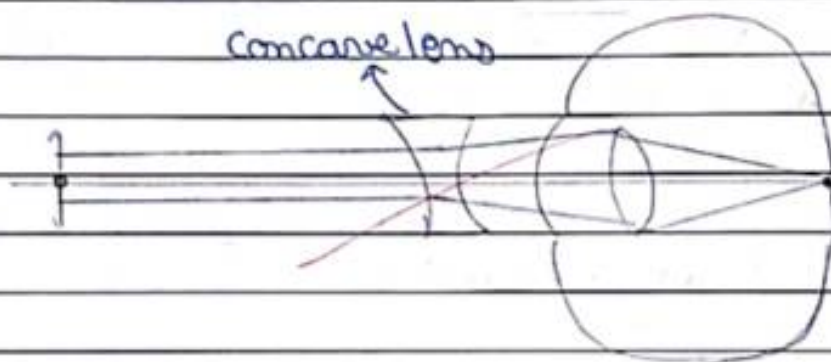
$$\boxed{} + \boxed{} + \boxed{} + \boxed{} + \boxed{} = \boxed{}$$

Caused:- Eye ball swell up

- Enlarged curvature of lens.

Remedies :- ^{To} ~~Eye~~ Myopia removed the Myopia

- A person should use a ~~convex~~ concave lens which is known as diverging lens



Other diagrams?

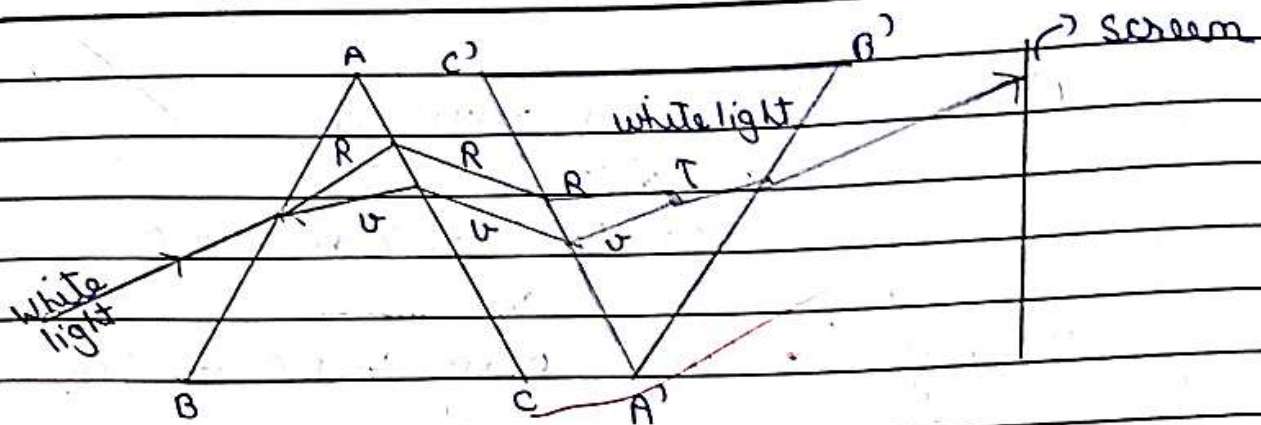
improper

→ (44) Newton Show that the white light of sun is made up of seven colour by taking

→ by taking two same prism and screen

→ He put one prism erect and second inverted show in figure

$$\boxed{} + \boxed{} + \boxed{} + \boxed{} + \boxed{} = \boxed{}$$



- when sun light enter First prism it divided into its component colours.
- but this component colour light enters Inverted prism it again Formed the white light.
- This is how, Newton show that the white light of sun is made up of seven colours.

→ Q45) - In presbyopia person not see the near & Far object clearly.

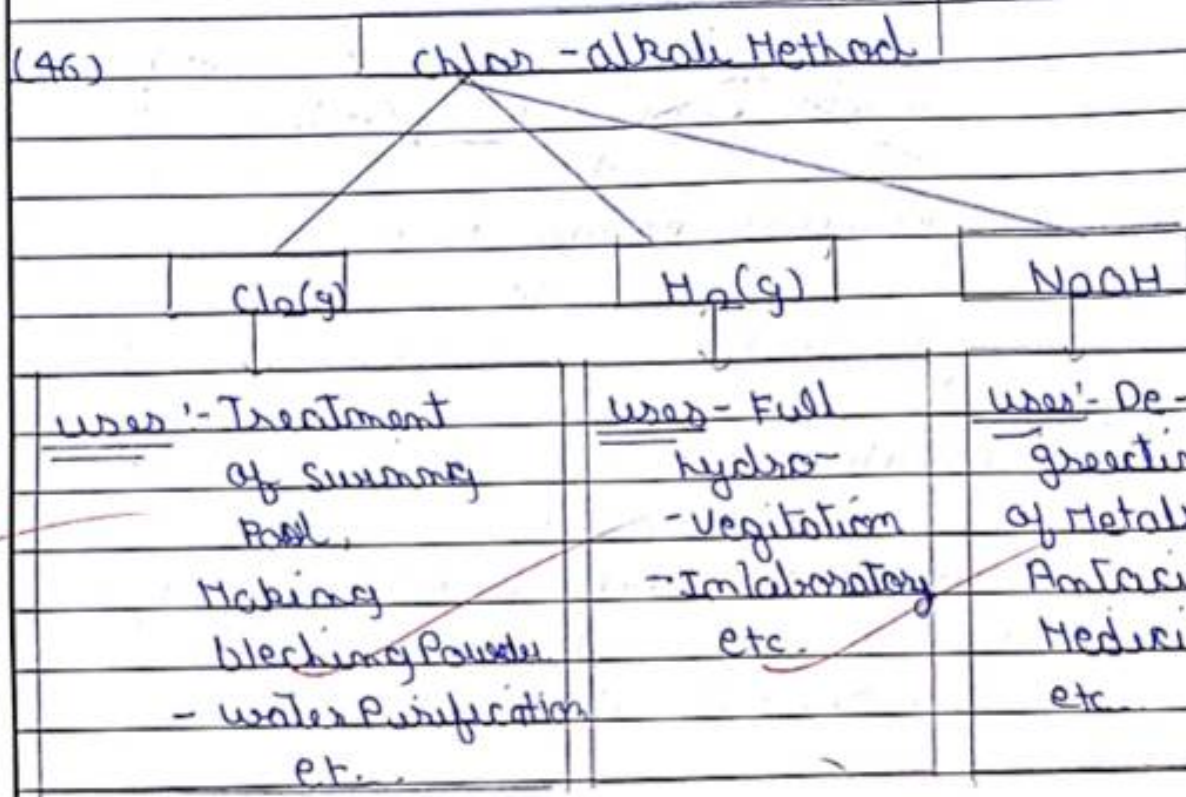
- In presbyopia both far point come near and near point go far.

- It is removed by using bi-focal lens.

- It is caused by Spring of Eye ball.

13

$$\boxed{} + \boxed{} + \boxed{} + \boxed{} + \boxed{} = \boxed{}$$



(43) Magnification of mirror = $\frac{h'}{h} = \frac{v}{u}$

- If the 'm' of mirror is 1 so, the image is same size

- If m of mirror is -ve so, it is concave mirror and If it is +ve so, it is convex mirror

- Magnification shows the comparision of Image and Object

- Magnification never be Zero.

	+		+		+		+		=	
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Section - D

(19.5)

(47) Common Name :- Baking Soda

Chemical Formula :- NaHCO_3

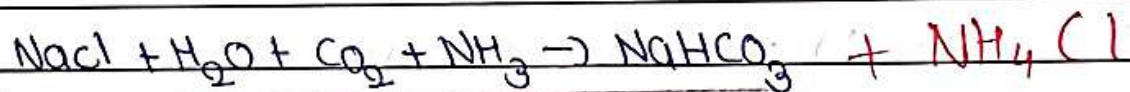
chemical Name :- Sodium bicarbonate

Preparation :-

- When CO_2 was passed through aqueous solⁿ of NaCl and ammonia was added in the solⁿ it formed NaHCO_3

- & It is non-corrosive salt.

- chemical equation :-



uses :-

- It is used to make baking Powder

- when NaHCO_3 was mixed with acid it formed baking Powder

- It is used as Am Soda-water Acid fire extinguisher

(3.5)

$$\boxed{} + \boxed{} + \boxed{} + \boxed{} + \boxed{} = \boxed{}$$

- It is use as soda antacid.

- It is used in cooking to make cake & Pakoras Soft.

→ (49) - There are major two type of component:-

(1) biotic component:- All the living thing is called biotic component.

- Ex. trees, Animals, Humans etc.

(2) Abiotic component:- All the Non-living thing is called Abiotic component.

- Ex. wind, sun, Soil etc

- There are other 3rd component of ecosystem.

(1) Producers:- The living things which convert solar energy into chemical energy in the form of food is called producers.

- It have chlorophyll to convert solar energy.

- Ex. Trees, plants etc.

	+		+		+		+		=	
--	---	--	---	--	---	--	---	--	---	--

2) Consumer:- consumer is a organism who take their food from eating Producer and other animals.

- consumer have 4 types:-

(1) Herbivores → It eats plants & plant product.

- Ex. cow, buffalo.

(2) Carnivores → It eats herbivores and

- Carnivores have two types

* (1) Secondary → who eats herbivores

- Ex. Fox, wolf etc.

* (2) Third Carnivores → who eats secondary Carnivores,

- Ex. lion, tiger etc.

(3) Omnivores → It eat both plants and animals

Ex - Human

	+		+		+		+		=	
--	---	--	---	--	---	--	---	--	---	--

(4) Parasites:- It is takes liquid food from the host.

- Ex. Plasmodium, Cuscuta, liver Fluke etc.

(3) Decomposers:- A organism who decompose the dead body of other animals by microbial activity.

- Ex. Fungi, bacteria etc.

→ (53) There are major two types of wastes:-
(1) biodegradable waste.

(2) Non biodegradable waste.

(1) bio-degradable waste:-

- A waste which was decompose by the microbial activity is called bio-degradable waste.

- It is made of natural things so. It is decompose easily.

- For Example:- Paper, Vegetables, wood human waste etc.

+ + + + =

(9) Non-bio-degradable waste:-

- It is the synthetic waste which is not decompose by microbial activity is called non-biodegradable waste.
- For Example:- Plastic, Polythene etc.
- It damage the food chain and ecosystem
- It can be recycle or be reuse
- It also caused bio-magnification.

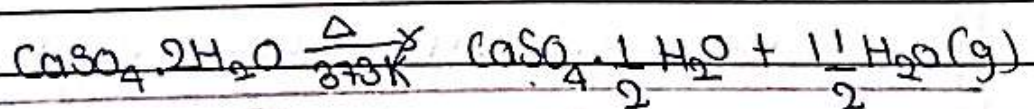
→ (54) Common Name:- POP (Plaster of Paris)

Chemical Formula:- $\text{CaSO}_4 \cdot \frac{1}{2} \text{H}_2\text{O}$

Preparation:-

- when gypsum ($\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$) heated on 373K it make $\text{CaSO}_4 \cdot \frac{1}{2} \text{H}_2\text{O}$

- Chemical Eqⁿ:-



$$\boxed{} + \boxed{} + \boxed{} + \boxed{} + \boxed{} = \boxed{}$$

- The power of convex lens is always positive.
- The power of concave lens is always Negative.
- The power of thick lens is high as compare to the thin.
- The power for the series of lens is given by

$$P = P_1 + P_2 + P_3 + \dots + P_n$$

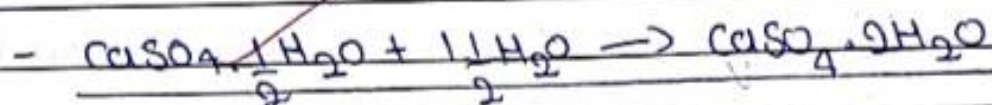
- Power have inverse relation with the focal length.
- Power of lens is define as the the power of lens to converge the or diverge the light ray.
- The plane lens / or lens slab have power zero.
- The ability of lens to magnified or diminished the image is called Power of lens.

$$\boxed{} + \boxed{} + \boxed{} + \boxed{} + \boxed{} = \boxed{}$$

- when POP ($\text{CaSO}_4 \cdot \frac{1}{2}\text{H}_2\text{O}$) was add in water

- it again formed gypsum.

- Chemical Equation:-



- Gypsum is a hard white stone.

uses:-

- POP was used in making toys,
Idols etc.

- POP was also used in setting.

- POP was used to joint + b bone which
is broken.

→ (50) - The formula for Power of lens is $\frac{1}{f}$

$$P = \frac{1}{f}$$

- Power's SI unit is Diopter (D)

$$\text{In SI unit } D = \frac{1}{\text{m}}$$