



केवल मूल्यांकनकर्ता के उपयोग हेतु!

माध्यमिक शिक्षा मण्डल, मध्यप्रदेश, भोपाल

32 पृष्ठीय

केवल परीक्षक द्वारा भरा जावे। प्रश्न क्रमांक के सम्मुख प्राप्तांकों की प्रविष्टि करें।

प्रश्न क्रमांक	पृष्ठ क्रमांक	प्राप्तांक (अंकों में)	प्रश्न क्रमांक	पृष्ठ क्रमांक	प्राप्तांक (अंकों में)
1			17		
2			18		
3			19		
4			20		
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9			25		
10			26		
11			27		
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14					
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16					

कल प्राप्तांक शब्दों में

कुल प्राप्तांक अंकों में

परीक्षक द्वारा भरा जावे

परीक्षक एवं उपमुख्य परीक्षक द्वारा भरा जावे

प्रमाणित किया जाता है कि अन्दर के पृष्ठों के अतिरिक्त मुख्य पृष्ठ पर अंकों की प्रविष्टि एवं अंकों का योग सही निर्धारित मुद्रा: नाम, पदनाम, मोबाईल नम्बर एवं पदांकित संस्था के नाम की मुद्रा लगाएं

उप मुख्य परीक्षक के हस्ताक्षर एवं मुद्रा

परीक्षक के हस्ताक्षर एवं मुद्रा

पायल मीनी

शा.उत्कृष्ट

V.No.

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Question 1 (True or False)

- (i) True ✓
- (ii) False ✓
- (iii) True ✓
- (iv) False ✓
- (v) True ✓
- (vi) False ✓

Question 2 (Match the Pairs)

(A)

(B)

- (i) Oxygenated blood
- (ii) Deoxygenated blood
- (iii) Bisexual flower
- (iv) Unisexual flower
- (v) Orange
- (vi) Ant sting

- Arteries ✓
- Veins ✓
- Hibiscus ✓
- Papaya ✓
- Citric Acid ✓
- Methanoic Acid ✓

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Question 3 (ONE SENTENCE)

- (i) Bleaching Powder is the common name of the compound CaOCl_2 .
- (ii) Metals of low reactivity such as gold, platinum etc. do not corrode easily.
- (iii) Alloys are the homogeneous mixture of two or more metals and/or non-metals.
- (iv) Fore brain detects the smell.
- (v) At the synapse between two neurons chemical reactions occur, here ions carry the impulses (information).
- (vi) The commercial unit of electrical power is horse power.

Question 4.

- (i) Double displacement reaction. (b)
- (ii) 1 (c)
- (iii) Al_2O_3 (c)
- (iv) all of the above (d)
- (v) Vas deferens (c)
- (vi) Ciliary muscle (c)

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Question 5 (Fill Ups)

- (i) voltmeter
 (ii) dispersion of light
 (iii) convex / plane mirror
 (iv) gene
 (v) hydra and yeast (unicellular)
 (vi) pituitary gland.

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EANSWER 6

Given, focal length radius of curvature (r) = +38 cm
 focal length (f) = ?

We know

$$f = \frac{1}{2} r$$

∴

$$f = \frac{1}{2} \times 38 = 19$$

$$\boxed{f = 19 \text{ cm}}$$

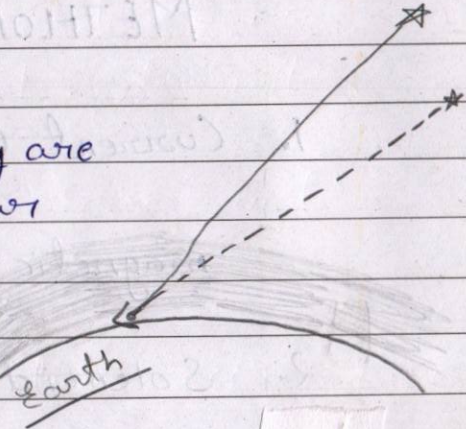
Answer:- The focal length of the convex mirror whose radius of curvature is 38 cm is 19 cm.

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ANSWER 7

TWINKLING OF STARS

Stars twinkle at night, this is because they are a point source of light, because of the far distance from the earth. When the ray of light enters in the atmosphere, due to the atmospheric refraction ~~pressure~~ it's apparent position changes frequently. Atmosphere is not stable and hence image forms several times and cause twinkling.



ANSWER 8

ELECTRIC CURRENT: Electric current is the rate of flow of charge ~~through~~ a conductor.

OR (in other words)

Charge passing through the cross section of wire during one second is the current.

UNIT: S.I. unit of current is Ampere (A).

$$I = \frac{Q}{t}$$



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ANSWER 9

METHODS OF PRODUCING MAGNETIC FIELDS

1. Current carrying circular loop: When current flow through circular loop wire then magnetic field is produced.

2. Solenoid: Solenoid is a coil made up of turns closely placed to each other in the form of cylinder. When current pass through it, it produces magnetic field.

ANSWER 10

KILLING ALL THE ORGANISM OF FIRST TROPHIC LEVEL

If we kill all the organisms of first trophic level then it will disturbs the links of ecosystem. The animals depending on the first trophic levels organism will face shortage of food because, the organisms depend on their preceeding trophic level. Second trophic level's organism will start decreasing as a result further trophic levels will also get disturbed and this creates an imbalance in ecosystem.

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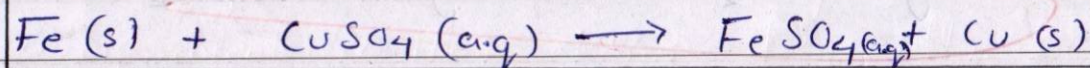
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ANSWER 11

IRON NAIL IN COPPER SULPHATE SOLUTION

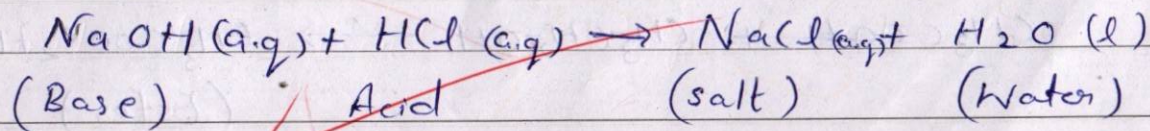
The colour of the copper sulphate solution changes when iron nail is placed in the solution from blue to pale green. The following displacement reaction takes place.



This happens because iron displaces copper from its salt solution and copper deposits on iron nail.

ANSWER 12

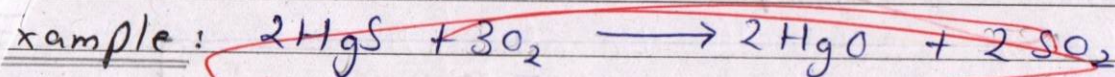
NEUTRALISATION REACTION: When acids and bases react to each other they not neutralizes the reaction and produce salt and water, this is known as neutralization reaction.

EXAMPLE:

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ANSWER 13

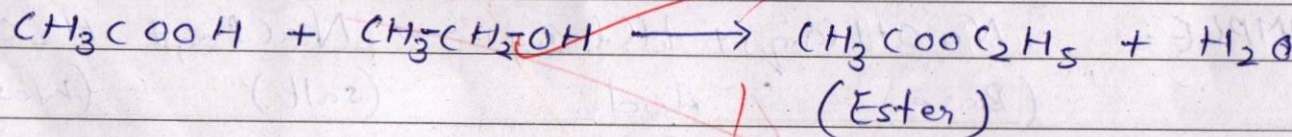
ROASTING: When a metal (ore of sulphide) is heated strongly in the presence of oxygen to get its metal oxide is known as roasting.



ANSWER 14

PROPERTIES OF ETHANOIC ACID

- Ethanoic acid or acetic acid has pungent smell and sour taste.
- Its melting point is 290 K, hence it freezes in winter and it is known as glacier acetic acid.
- When it is reacted with ethanol (alcohol) it gives ester and the following reaction occurs.





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ANSWER

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BLOOD

- It is red coloured fluid
- It has red blood cells.
- Its flow is rapid

LYMPH

- It is colourless fluid. (NCERT)
- Red blood cells are absent here.
- Its flow is slow.

ANSWER

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FUNCTION OF PLANT HORMONES

- Auxin : Auxin in plants is responsible for the elongation of cell at the tip of plant and hence is responsible for growth of plants.
- Gibberellins : Gibberellins are responsible for germination of seeds.

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ANSWER 17

MALE REPRODUCTIVE SYSTEM'S PART

(i) Testis : Testis produces male sex hormones that are testosterone and it is responsible for sperm growth of male sex parts, also sperm is produced by testis.

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S
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(ii) Penis : It is the important part of male reproductive system because during the process of mating it helps to release sperm in female vagina.

ANSW

MENDEL SELECTED PEA PLANT FOR FOLLOWING REASONS

1. Bisexual Plant: The pea plant (*Pisum sativum*) ~~was~~ is a bisexual plant so it provides Mendel the choice for self-pollination and cross pollination.
2. Different Characters: Pea plant has different characters (dominant and recessive alleles of characters) such as its height, seed shape and colour, etc. This helps to get experiment done on wider scale.
3. Short life time And Annual Plant: It has shorter life time so plants will get mature rapidly and also it was annual plant so different progenys can be studied.

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ANSWER 19

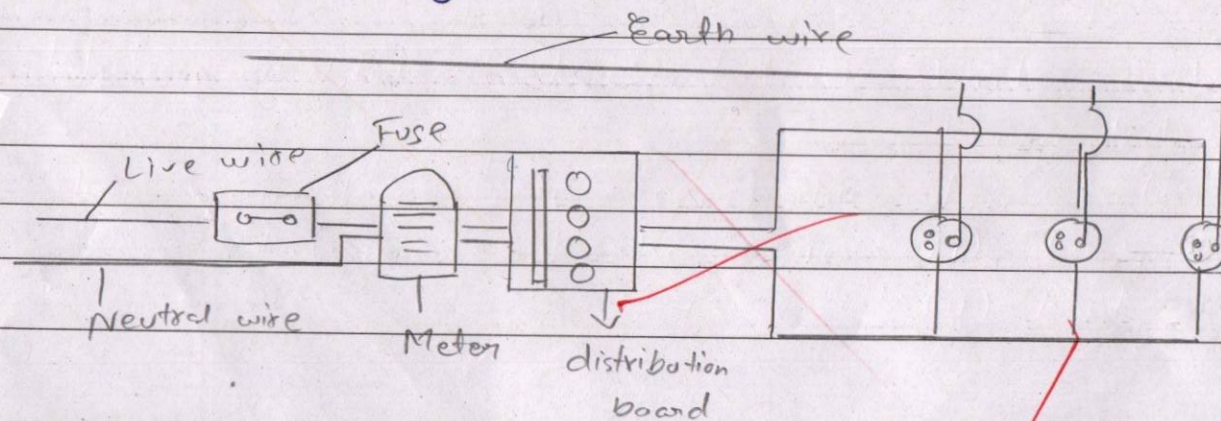
FUNCTION OF EARTH WIRE

Earth wire has insulation of green colour and it is responsible for saving our lives from shocks.

When extra charge leaks from the circuit to the metallic body of appliances then the Earth wire takes this charge and send to the Earth. It is not directly involved in the circuit.

Necessity

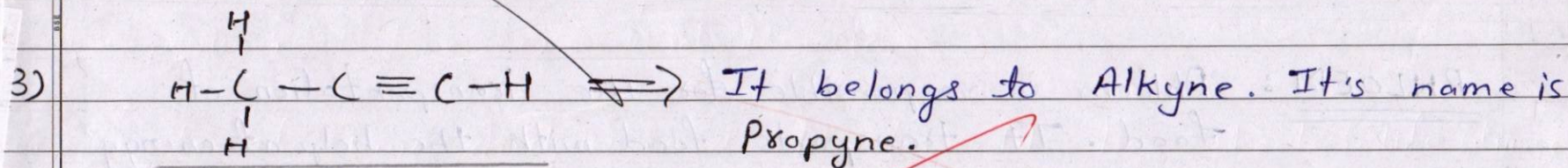
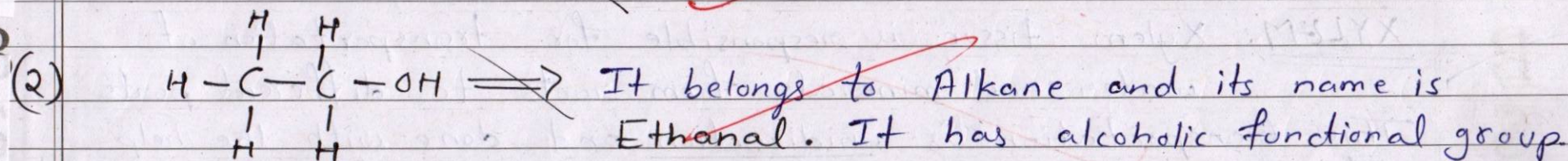
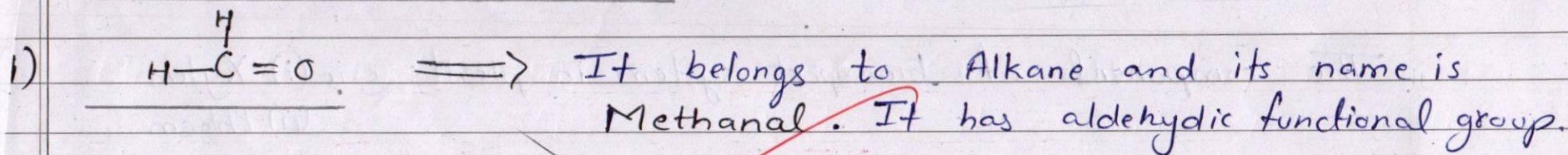
We should earth metallic electrical appliances because some times insulation of the live wire or neutral wire get removed and charge come on the appliance's body, so to prevent shocks we should earth appliances.



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ANSWER 20

NAME OF COMPOUNDS:





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ANSWER 21

TRANSPORTATION IN PLANTS

The components of transport system in plants are (i) Xylem
(ii) Phloem

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XYLEM: Xylem tissue is responsible for transportation of water and minerals from roots to different parts. This transportation is unidirectional and done with the help of tracheids and vessels.

PHLOEM: Phloem is responsible for the transportation of food. It transports food with the help of energy in both upward and downward direction. This is done with the seive tubes and companion cells.

Water and Mineral Transportation: Water and minerals get transported by xylem tissue. Two main forces are responsible for water and mineral transportation, and these are (i) Transpirational pull
(ii) Root Pressure

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ANSWER 22 (OR)

- ① **REFRACTION**: Refraction is the change in the path of the light rays when it travels from one transparent medium to another transparent medium.

LAWS OF REFRACTION

- B** (i) The incident ray, the refracted ray and the normal, at the point of incidence at the interface of two mediums, all lie in the same plane.
- S**
- E** (ii) The second law of refraction states that the ratio of sine of angle of incidence to the angle of refraction is constant for a given wavelength (colour of light).
- $$\frac{\sin \angle i}{\sin \angle r} = \text{constant}$$

② Use of Concave Mirror

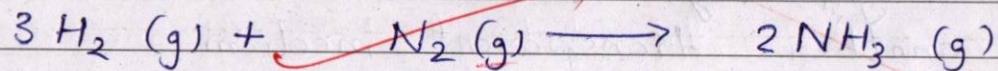
- Concave mirror is used in headlights of automobiles.
- It is used in solar furnaces.



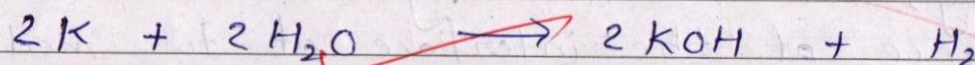
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ANSWER 23

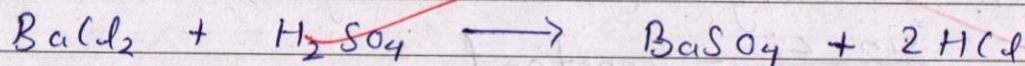
(i) Hydrogen gas combines with nitrogen to form ammonia.



(ii) Potassium metal reacts with water to give potassium hydroxide and hydrogen gas



(iii) Barium chloride reacts with sulphuric acid to give barium sulphate and hydrochloric acid.



(iv) Hydrogen sulphide gas burns in air to give water and sulphur dioxide.

