A.P. STATE SYLLABUS

C.C.E. MODEL QUESTIONS

CLASS-10

PHYSICAL SCIENCE

ENGLISH MEDIUM

By

D.C.E.B. – PRAKASAM Dist.

X CLASS - PHYSICAL SCIENCE

10.01 HEAT

1. Convert 47°C into Kelvin Scale.
2. Which Factors that affect the rate of evaporation ?
3. What would be the final temperature of mixture of 60g of water at 40°C temperature and 60 g of water at 80°C temperature ?
4. Sheela has confused about Latent heat and specific heat. Can you clarify ? How ?
5. Which of the following substances take more time to raise its temperature for a certain degree celcius. Give reason.

Specific Heat	Kerosene	Water	Sea Water
In Cal/gm°C	0.50	1	0.95

6. Why do pigs toil in mud ?
7. When ice melts, what happend to its temperature ?
8. The rate of raise in temperature depends upon the nature of substances. How can you prove experimentally ?
9. How much energy released in which 1 gm of water at 0°C freezes to 1 gm of ice at 0°C ?
10. What is the effect of temperature on the kinetic energy of the molecules in a substance ?
11. Your teacher made an experiment that shows the formation of dew. Explain what did you observe ?
12. Explain how the wind speed effect the rate of evaporation, with an activity.
13. Lalita wants to determine the specific heat of Iron bob, what apparatus or material is needed to her ?
14. If we provide heat to ice at 0°C, why the temperature does not changes until the ice changes to water ?
15. What are the conditions for thermal equilibrium of two bodies ?
16. How can you prove that the kinetic energy of molecules of a hotter body is greater than that of a colder body ?
17. Write the differences between dew and fog.
18. What is thermal equilibrium ? If we mix 100 ml. of water at 90°C to 200 ml of water at 60°C. Then find the temperature of the system at thermal equilibrium ?

10.2. CHEMICAL REACTIONS AND EQUATIONS

1. Identify the reducing agent in the following reactions.

   a) $Fe_2O_3 + 3CO \longrightarrow 2\,Fe + 3O_2$

   b) $2H_2 + O_2 \longrightarrow 2H_2O$

   c) $CuO + H_2 \longrightarrow Cu + H_2O$

2. Why do we store silver chloride in dark colured bottles ?

3. A magnesium ribbon is burnt in oxygen to give a white compound compound 'X' accompanied by emission of light. If the burning ribbon is now placed in an atmosphere of nitrogen it continues to burn and forms a compound 'Y'.

   a) Write the chemical formulae of 'X' and 'Y'.

   b) Write a balanced chemical equation, when X is dissolved in water.

4. Zinc liberates hydrogen gas when reacted with dilute hydrochloric acid. Where as copper does not explain why ?

5. A silver article generally turns black when kept in the open for a fewdays ? The article when rubbed with tooth paste again starts shining.

   a) Why do silver articles turn black when kept in the open for a fewdays ? Name the phenomenon involved ?

   b) Name the black substance formed and give its chemical formula ?

6. Give the characteristic tests for the following gases.

   a) H_2 b) CO_2 c) O_2 d) SO_2

7. What happens when a piece of

   a) Zinc metal is added to coppersulphate solution ?

   b) Silver metal is added to copper sulphate solution ?

8. On adding 1 gm KI aqueous solution of $(Pb(NO_3)_2)$ 2 gm. $PbNO_3$ aqueous solution ?

   1. Write a balanced chemical equation of the reaction involved.

   2. What other name can be given to this precipitation reaction ?

   3. Which colour precipitate is obtained.

9. You are provided with two containers made up of copper and aluninum you are also provided with solutions of dilute HCl, dilute HNO_3, $ZnCl_2$ and H_2O In which of the above containers these solutions can be kept.

10. A colourless Lead Salt, when heated produces a yellow residuce and brown fumes.

    a) Name the Lead salt ?

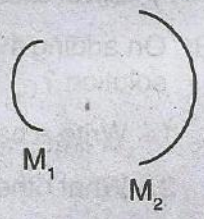
    b) Name a brown fumes.

    c) What a chemical equation of the reaction involved.

11. When hydrogen burns in oxygen, water is formed and when water is electrolyed, then hydrogen and oxygen are produced what type of reaction take place.
    1) In the first case
    2) In the second case
12. Why are decomposition reactions called the opposite of combination reations ? Explain with equations of the reactions ?
13. What happens when silver nitrate solution is added to sodium chloride solution ?
    a) Write the equation for the reaction which takes place.
    b) Name the type of reaction involved.
14. A strip of metal 'X' is dipped in ablue coloured salt solution YSO_4. After solution is formed on the surface of metal strip 'X' Metal X is used in galvanisation wher as metal Y is used making electric wires Metal X and metal Y together form an alloy Z.
    a) What could metal X.
    b) What could metal Y.
    c) Name the metal salt YSO_4.
    d) What type chemical reaction takes place and write the equation of the chemical reaction.
    e) Name the alloy Z.

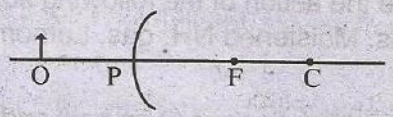
10.3. REFLECTION OF LIGHT

1. Where the image is formed when an object is placed on the principal axis of a concave mirror between the centre of curvature and the focus. What is the character of image ? Explain with a neat diagram.
2. The focal length of a convex mirror is 20 cm. If an object placed at 40 cm. of before the mirror at which place the image should be collected ?
3. Two spherical mirrors are obtained from a same spherical substance.
   Which mirror has more focal length ? Either M_1 or M_2 ?



4. Write the mirror formula. Explain the terms in it ?
5. Draw the diagrams of concave and Convex Mirrors. Indicate P, F and C.
6. The focal length of a concave mirror is 10 cm. If an object is placed at 20 cm. distance before the concave mirror, where should be the image collected ?
7. The teacher asked James a question. James replied the correct answer "R = 2f". Can you guess, what is the question ?
8. If a concave mirror formed real, inverted and diminished image, then
   (i) where was the object placed ?
   (ii) Where should be the image collected ?

9. When a light ray incident parallel to axis of a mirror, what is the path of reflected ray ?
10. A teacher asked the students, "which mirrors can form virtual images ?" Saketh replied, "Concave mirrors"; spandana replied, "Convex mirror"; and Reeta replied, "Plane mirrors". What is your opinion ? Which answer do you support ? Explain.
11. Name the mirrors that form images behind the mirrors ?
12. If m = –1.5, which mirror it is ?
13. What type of image is formed due to convergent bean of light rays ?
14. Which mirror shown in the figure ?



15. What is the relation between angle of incidence and angle of reflection when reflection takes place ?
16. If m = +1.5, them
    i) Which mirror it is ?
    ii) What is the place of object ?
    iii) Where should be the image collected ?
    iv) What are the properties of image ?
17. The image appears always virtuals erect and enlarged by a concave mirror where is the object placed ?
18. Write any four sistuations that you had observed virtual images.
19. Jayanth made an experiment and find out the focal length of a concave mirror as 20 cm. Prakash observed the radius of curvature of the same as 40 cm. Then who is correct mirror, forms the image of an object which is at infinite distance at 20 cm.
20. If you want to get diminished and real image, which mirror do you select ?
21. The doctors used concave mirrors. Why ?
22. A concave mirror produces three times enlarged real image of an object placed at 10 cm. infront of that mirror. Where is the image located ? Is it erect or ?
23. No matter how far you stand infront of a mirror, it forms erect image. What is the mirror ?
24. Name the type of mirror used in the following (conditions) situations.
    i) In solar cooker.
    ii) For ENT specialist
    iii) In Head lights of a car
    iv) As rear view mirrors in vehicles
25. Write english alphabet. Draw the mirror images of the letters. Ex : p | q (use plane mirror)

10.04. ACIDS, BASES AND SALTS

1. Match the acids given in colum (A) with their correct source given.

Column (A)	Column (B)
a) Lactic acid	i) Tomato
b) Acetic acid	ii) Lemon
c) Citric acid	iii) Vinegar
d) Oxalic acid	iv) Curd

2. What will be the action of the following substance on Litmus paper ?
   Dry HCl gas, Moistened NH_3 gas, Lemon Juice carbonated salt drink, curd, soap solution.

3. Ravi Prepared solutions of (i) an acid and (ii) abase in two separate beakers. She forget to label the solutions and Litmus paper is not available in the laboratory since both the solutions are colourless how will he distingush between the two ?

4. How would you distinguish between Baking powder and washing soda by heating ?

5. Salt A commonly used in bakery products on heating gets converted into another salt B which itself is used for removal hardness of water and a gass C is evolved the gas 'C' when passed through limewater, turns it milky Identify A, B and C.

6. In one of the industrial processes used for manufacture of sodium hydroxide, a gas 'X' is formed as by product. The gas 'X' reacts with lime water to give a compound 'Y' which is used as ableaching agent in chemical industry. Identify 'X' and 'Y' giving the chemical equation of the reactions involved.

7. When zinc metal is treated with a dilute solution of a strong acid. A gas is evolved which is utilised in the hydrogenation of oil. Name the gas evolved. Write the chemical equation of reaction involved.

8. Identify the compound 'X' on the basis of the reactions given below, also write the name and chemical formulae of A, B and C.

$$\boxed{\text{Compound X}} + \xrightarrow{Zn} \text{(A)} + H_2\uparrow$$

$$\boxed{\text{Compound X}} + \xrightarrow{HCl} \text{(B)} + H_2O$$

$$\boxed{\text{Compound X}} + \xrightarrow{CH_3COOH} \text{(C)} + H_2O$$

9. Three solutions A, B, C have p^H values of 6, 4 and 10 respectively. Which of the solution is highly acidic.

10. Two solutions X and Y have $p^H = 4$ and $p^H = 8$ respectively. Which solution will give alkaline reaction and which one acidic.

11. Why should curd and sour substances not be kept in brass and copper vesseles.

10.05 REFRACTION OF LIGHT AT PLANE SURFACES

1. Interpret the following diagrams when light rays gets refraction.

Medium – A

Medium – B

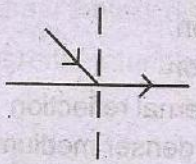


Fig (i)

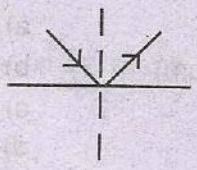
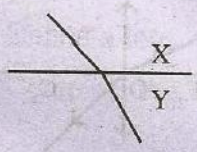


Fig (ii)

2. Explain critical angle with a neat diagram.
3. Draw a diagram for the following situation. "The light ray travels from rarer medium to denser medium".
4. What is the difference in the speed of light when medium changes ?
5. When do total internal reflection takes place ?
6. What are the conditions for total internal reflection ?
7. How can you determine the lateral shift of a glass slab experimentally ?
8. What happened when incident angle is more than critical angle ?
9. If a light ray from air enters into water. Does it bend towards the normal or away from the normal ?
10. In which medium does the light travel fast as per the given table.

Refractive	Air	Ice	Diamond	Kerosene
Index	1.0003	1.31	2.42	1.44

11. The refractive index of Benzene is 1.5 _____ what do you understand by this statement ?
12. 

Observe the figure can you guess the media, which is rarer ? And which is denser ? How can you tell ?
13. The refractive index of Diamond is 2.42. Find the speed of light through Diamond.
14. Observe the following. Identify whether the light rays travels either rarer medium to denser medium or denser medium to rarer medium ?

    (i) i < r (ii) i > r
15. A light ray travels from air to water. But i = r. What do you say ?
16. The thickness of glass slab is 10 cm. The vertical shift of glass slab is 5 mm. Find the refractive index of glass slab ?
17. Which is optically denser medium if medium-1 has refractive index 1.5 and medium-2 has refractive index 1.3.

18. Match the following terms in Column-A with suitable options given in Column-B.

Column - A	Column - B
i) $i = r$	a) refraction
ii) $i \neq r$ (maximum)	b) Reflection
iii) $i > c$	c) Total internal reflection
iv) $i > r$	d) rarer to denser medium
v) $i < r$	e) denser to rarer medium
vi) $i = c$	f) critical angle

10.06 REFRACTION OF LIGHT AT CURVED SURFACES

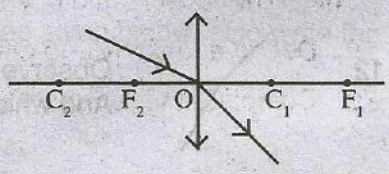
1. The focal length of a converging lens is 20 cm. An object is 60 cm. from the lens. Where will be the image formed ? What kind of image is it ?
2. A spherical mirror and a spherical lens have each a focal length of –15 cm. What do you say about the type of mirror and lens ?
3. Half of a convex lens is covered with a black paper. Can it form full image ?
4. the lemon in water glass appears in big size. Draw a ray diagram.
5. Write the names of convergent lenses.
6. Classify the following as convergent and divergent lenses.

   (i) Bi convex lens (ii) Bi concave lens

   (iii) Plano convex lens (iv) Plano concave lens.
7. If object is placed beyond C_2 on the principle axis before a convex lens, where should be the image collected ? What are the properties of the image ?
8. N_1 ———————— N_2

   Draw a line that indicates a lens which is suitable for the diagram. The two dots represents object and image.
9. Interpret about the given diagram.

   Identify two mistakes in the diagram.
   (Let the lens is thin)



10. An object is placed at 20 cm. before a convex lens. The image can be collected at 40 cm. Find the focal length and radius of curvature ?
11. Is the focal length of Bi convex lens is positive or negative ? How can you tell ?
12. Write the differences between Convexlens and Concave lens and also the differences between Convex lens and Concave mirror.
13. An optical device which is working on the principle of refraction formed the virtual image of an object in small size.

    (i) Is it a mirror or lens

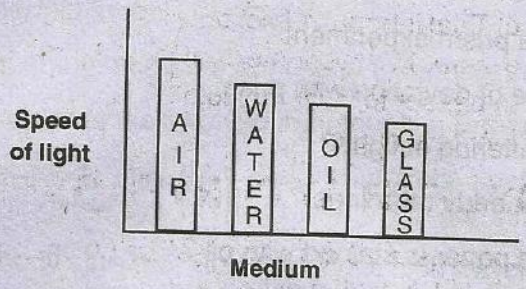
    (ii) What is the device ?

    (iii) Where is the object placed ?

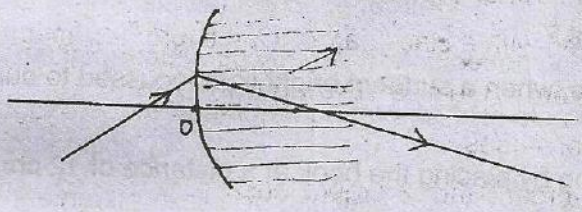
(iv) What is the place of image ?

14. If object is placed at 2f distance before a convex lens, where should be the image collected ? Draw the ray diagram.

15. Speed of light in different materials are given in the graph.



Which one among the given four mediums has more refractive index value ?

16. 

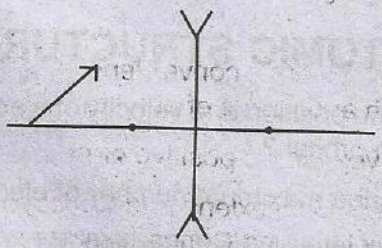
What is normal to the curved surface ? Draw it.

17. If Jagruthi obtained a magnification of –1 with convex lens of focal length 10 cm. What is the object distance from the lens ?

18. Which of the following statements are true for refraction in curved surfaces ?
    (i) The focal length of a converging lens is some times, negative.
    (ii) The focal length of a converging lens is always negative.
    (iii) The focal length of a converging lens is always positive.

19. Define a lens. Name different lenses. Draw the diagrams.

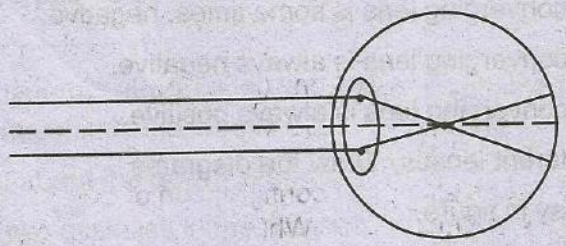
20. Complete the refracted ray in figure.



10.07 HUMAN EYE AND COLOURFUL WORLD

1. Ravi is suffering from Myopia. Which type of lens do you prefer for him ?
2. Define 1 dioptre of power of lens.
3. Find the power of a concave lens of focal length 2m.
4. Two observers standing apart from one another. Do they observe same rainbow ?

5. Write differences between lenses in the view of usege then in correcting eye problems.
6. Write any two uses of concave lenses.
7. What are the conditions for occurance of dispersion ?
8. What is angle of deviation in a prism experiment ?
9. Draw a diagram to show angle of deviation with prism.
10. Whre can we observe the scattering of light ?
11. Why the sun appears in red at early mornings ?
12. What happened when a white paper is stained with oil ?
13. Which is not change, during refraction ?
14. Does eye lens form real image or virtual image ?
15. How can ciliary muscles useful ?
16. Why we should close our eyes, when a suddent bright light focussed to our eyes ?
17. A boy of 10 year old is studying by placing the book at a distance of 12 cm. can he read the book comfortably ?
18. Why is the sky blue ? Why some times it appears white ?
19. Doctor advised vamsi to use 4D lens. What is the focal length ?
20. What can we do to correct the following eye defect.



10.08 ATOMIC STRUCTURE

1. Exactly we can not identify the position and velocity of electron ? How this concept is a reason for the formation orbital ?
2. Which rule is useful to describe maximum number of electrons in each orbital ?
3. Govardhan has written the electronic configuration of carbon as follows.

C (Z = 6)

1s	2s	$2p_x$	$2p_y$	$2p_z$
↑↓	↑↑	↑↓		

Which rules are voilet here ?

4. How a tenth class student imagine after observing different colours of light from different street lights ? Give reasons ?

5. If l = 3 then what is the maximum value of magnetic quantum number (m_l) ?
6. Explain how quantum theory was useful for Bohr's model of atom ?
7. How moeller diagram is useful in writing the electron configuration of elements ?
8. How do you react to explain the common elements between Rutherford, Bohr, Sommerfeld models of atom ?
9. How quantum numbers are useful to identify the exact position of electron ?
10. What are reasons involved in presenting Bohr sommerfeld model of atom ?
11. Bikshal reddy said that, Electromagnetic spectrum completely we can observe with our naked eye ? Then how do you correct it ?
12. If any body says that Red colour has high wavelength. So it has high energy. Then how do you explain with quantum theory.
13. Do you agree if any body says that p_x, p_y, p_z orbitals are degenerate orbitals but 2p and 3s orbitals are not degenerate ? Why.
14. What information do you get from electron configuration ?
15. Write the four quantum numbers of 14th electron in calcium atom ? What is your observation ?
16. Write pauli's exclusive principle ?
17. Draw moeller diagram ?
18. Explain Zeeman and stark effects ?
19. How emission spectrum is formed ?
20. Write the electron configuration of following elements.

    (i) Boran (ii) Chlorine (iii) Chromium (iv) Zinc
21. Draw electromagnetic wave and label its parts.
22. $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 3d^{10}\ 4s^1$ is the electronic configuration of Cu(z=29). Which rule is violated while writing this configuration ? What might be the reason for writing this configuration ?
23. Explain the formation of rainbow ?
24. Explain hund rule with an example ?
25. How electromagnetic wave is formed ? Write its characterestics ?
26. Write names of elements with high stability ?
27. Which quantum number gives size and energy of orbital ?
28. If n = 5, then what is the maximum value of 'l' ?
29. Write plank's equation ? Explain the letters in it ?
30. Draw the shapes of 'p' and 'd' orbitals ?

10.09 CLASSIFICATION OF ELEMENTS

1. How mendeleef's classification is useful for modern classification. Give your opinion ?
2. What are the causes for the classification of elements ?
3. Explain why Ionisation energy does not follow any trend in periods ?
4. Tell the following elements belongs to which period and group.

   (i) $1s^2\ 2s^2\ 2p^5$ (ii) $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^1$

   (iii) $1s^2\ 2s^2\ 2p^6\ 3s^1$ (iv) $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^5$
5. Identify the elements belongs to same block in the periodio table.

   (i) $1s^2\ 2s^2$ (ii) $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 3p^6\ 4s^1$

   (iii) $1s^2\ 2s^2\ 2p^1$ (iv) $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 4s^2\ 3d^5$
6. How do you explain the relation between atomic size and electronegativity ?
7. Mendeleef left some gaps in the periodic table for newly finding elements in future. How do you appreciate him for that ?
8. Draw flow chart of scientists in classification of elements with their models ?
9. Write the ions formed by the elements with atomic numbers.

   (i) 11 (ii) 13 (iii) 20 (iv) 24
10. Elements with 8, 14, 23, 29 no. of protons in the periodic table belons to which period and group ?
11. Write the electronic configuration of elements in the second period and 4th, 5th, 6th group in the periodic table continously ?
12. Atomic radii of the elements in the first group are given below. By observing the table answer the following questions.

Its group elements	Li	Na	K	Rb	Cs
Atomic radius in Pico.metres	152	186	231	244	262

   (i) Name the Inert gas nearer to potassium ?

   (ii) What is the outer most configuration of above all elements ?

   (iii) Which atom has high atomic radius ?
13. The electron configuration of P and Q elements are 2, 8, 1 and 2, 6 respectively. Then

   (i) Which forms Cation ?

   (ii) Which forms Anion ?

   (iii) What is the valency of 'P' ?

(iv) What is molecular formula of compound formed from P and Q ?

14. The electronic configuration of an atom is $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 4s^2\ 3d^4$
    (i) In which orbital the last electron is present ?
    (ii) Name the atom with above electronic configuration ?
    (iii) Write four quantum numbers of last electron ?
15. Justify whether the following group indicates Dobereiner triad or not.
    (i) Na, Si, Cl (Atomic weights 23, 28, 35.5 respectively)
    (ii) If S, Se, Te indicates dobereiner traid, what is the atomic weight of Se ? (At. wt. of S, Te are 32,127)
16. What is mendeleefs periodic law ?
17. Based on which periodic preperty the modern periodic table was constructed ?
18. Which elements behave as semi conductors ?
19. Explain why nitrogen has less electronegativity that oxygen ?
20. Do you think that Newlands concept of octaves is correct ? Explain.
21. Define Ionisation energy ? Explain the factors affecting it ?
22. Explain how metallic and Non metallic characters varies in periods and in groups.
23. Explain main features in Mendeleef's periodic table ?
24. Explain the draw back in Dobereiner triad theory ?
25. Explain screening effect ?
26. What is electron affinity ? Explain the factors affecting it ?
27. Which elements are called lanthanoids and Actinoids ?
28. What is the name of element given in memory of Mendeleef ?
29. What are inert gases ? Write their general electronic configuration ?
30. What is the method given by Milliken to calculate electronegativity of an element ?

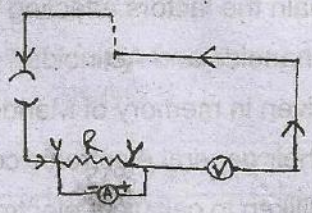
10.10 CHEMICAL BONDING

1. What are favourble condetions for the formation of anion and cation ?
2. Name two compounds that are covalent when pure but produce ions when dissolved in water. For each compound give the formule of ions forms in an aquous solution.
3. Give reason for the fact that noble gases are least reactore.
4. Give few examples for electron deficient molecules.
5. "HCl dissolves in water" Explain.
6. Define Co-ordination number.

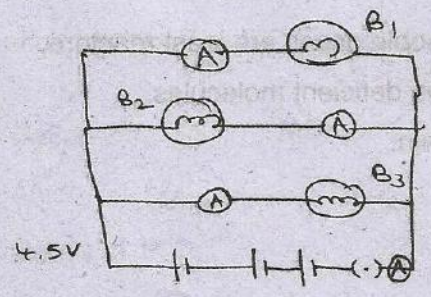
7. Write the postulates of Valence shell electron pair repulsion theory (VSEPRT).
8. Explain why ionic compounds have high boiling and melting points.
9. What is the total number of sigma and pi bonds in the following Molecules ?
   (a) C_2H_2 (b) C_2H_4
10. Which hybrid orbitals are used by carbon atoms in the following molecules ?
   (a) $H_3C - CH_3$ (b) $CH_3 - CH = CH_2$ (c) $CH_3 - CH_2 - OH$
   (d) $CH_3 - CHO$ (e) CH_3COOH
11. What do you understand by bond pairs and lone pair of electrons ?
12. "Bond angle of ammonia reduced to 107°48' from 109°28'" said Ramya is she correct ? Justify your answer.
13. Write the difference between Ionic bond and Covalent bond.
14. Write Lewes symboles for the following atoms and ions.
   (a) S and S^{-2} (b) Al and Al^{3+}
15. Write the E.C. of the following ions.
   (a) S^{-2} (b) Al^{3+}

10.11 ELECTRICITY

1. A child has drawn the electric circuit to study ohm's law as shown in figure his teacher told that the circuit diagram needs correction. Study the circuit diagram and redrawit after making all corrections.



2. What is the commercial unit of electrial energy ? Represent it in terms of Joules.
3. Why is parallel arragement used in domestic wiring ?
4. Three 2Ω resistors A, B and C are connected in parallel. Find the net resistance.
5. B_1, B_2 and B_3 are three identical bulbs connected as shown in Figure when all the three bulbs glow a current of 3A is recorded by the ammeter A.



1. What happens to the glow of the other two bulbs when the bulb B_1 get fused ?
2. What happens to the reading of A_1, A_2, A_3 and A when the bulb B_2 gets fused.
3. How much power is dissipated in the circuit when all the three bulbs glow together ?

6. Three incandescent bulbs of 100W each are connected in series in an electric circut. In another circuit another set of three bulbs of the same wattage are connected in parallel to the same source.
   a) Will the bulb in the two circuits glow with the same brightness ? Justify your answer.
   b) Now let one bulb in both the circuits get fused. Will the rest of the bulbs continue to glow in each circuit ? Give reason.
7. A bulb is rated at 5.0 volt, 100 m A calculated its (1) power (2) resistance.
8. Judge the equivalent resistance when the following are connected in parallel.
   (a) 1Ω and $10^6\Omega$ b) $1\ \Omega$ and $10^3\Omega$ and $10^6\Omega$
9. What are the advantages of connecting electrical devices in parallel with the battery instead of connecting them in series ?
10. Ten bulbs are connected in a series to a power supply line. Ten identical bulbs are connected in parallel circuit to an identical power supply line.
    a) Which circuit would have the highest voltage across each bulb ?
    b) In which circuit would the bulbs be brighten.

10.12 ELECTRO MAGNETISM

1. Write some energy transformations.
2. What happened if a compass placed near a current passing wire ?
3. Do the lines of Magnetic force cross each other ?
4. How can a straight current wire produce magnetic field ?
5. Can the magnetic field direction be reversed ? How ?
6. Give two examples of the uses of an Electromagnet.
7. Why does the coil in a loud speaker need Alternate current ?
8. State whether the following statements are true or false. And correct them it false.
   (i) A motor converts electrical energy into mechanical energy.
   (ii) A generator works on the principle of electromagnetic induction.
9. Which device is used to produce electric current ?
10. Write the essential differences between AC generator and DC generator.
11. Susmita said, "At the time of short circuit, the current in the circuit increases". What do you say ?
12. List out any two methods to produce magnetic field.
13. What is the pattern of magnetic field lines inside a solenoid ?
14. Name some devices, which works on the electro magnetic induction ?
15. Which is correct ?
    (i) Electricity produces magnetism.
    (ii) Magnetism produces electricity.

16. Draw the pattern of magnetic field produced by electric current through a straight wire and through a wire coil.
17. A compass needle deflected when it was kept near a current carrying wire. If the battery set up reversed, (Positive to Negative) what happen ?
18. What happens when a current carrying wire is kept in a magnetic field ?

10.14 CARBON AND ITS COMPOUNDS

1. Daimond is a poor conductor of electricity while graphiti is a good conductor. Give reason.
2. Give the full form of IUPAC ?
3. Which functional groups are present in the family of
   (i) Alcohols (ii) Aldehydes (iii) Carboxylic acids.
4. Why soaps cannot be used in hard water ?
5. Why are organic compounds present in such a large number.
6. Out of Ketonic and aldehydic groups, which is the terminal functional group.
7. Why are vegetables oils healthy as compound to vegetable ghee ?
8. What is 'p^{ka}' ? Collect information about it ?
9. What is substitution reaction ? Give one example.
10. Explain, sp, sp^2, sp^3 Hybxidisation with sutable examples.
11. Draw the structures of the following molecule.
    (a) C_2H_4 (b) C_2H_2 (c) Graphite
12. Why are carbon and its compounds used as fuel for most applications.
13. What is a micelle ?
14. Write the decreasing order of priority of functional groups.
15. Explain spanification with example.
16. What are oxidising agents ? Give an example.
17. Draw the structures of the following compounds.
    a) Hexanal b) Pentanoic acid c) 2–pntanone
18. Matching

Name of the compounds		Functional group
1. Alcohols	( )	A) – CHO
2. Aldehydes	( )	B) –COOR
3. Ketones	( )	C) – OH
4. Carboxylic acids	( )	D) – CO
5. Esters	( )	E) – COOH