MT EDUCARE LTD.

SUMMATIVE ASSESSMENT - 1
2013-14

CBSE - X **Set - C**

Roll No. | | | | | | | |

Code No. 32/1

Series RLH

- Please check that this question paper contains 7 printed pages.
- Code number given on the right hand side of the question paper should be written on the title page of the answer-book by the candidate.
- Please check that this question paper contains 41 questions.
- Please write down the serial number of the question before attempting it.

SCIENCE (Theory)

Time allowed **:** 3 hours ***Maximum Marks*** **:** 90

General Instructions :

i) The question paper comprises of two sections A and B, you are to attempt both the sections.

ii) All questions are compulsory.

iii) All questions of section A and all questions of section B are to be attempted separately.

iv) Question numbers 1 to 3 in section A are one mark question. These are to be answered in one word or one sentence.

v) Question numbers 4 to 7 are two mark questions, to be answered in about 30 words.

vi) Question numbers 8 to 19 are three mark questions, to be answered in about 50 words.

vii) Question numbers 20 to 24 are five mark questions, to be answered in about 70 words.

viiii) Question numbers 25 to 42 in section B are multiple choice questions based on practical skills. Each question is a one mark question. You are to choose one most appropriate response out of the four provided to you.

SECTION - A

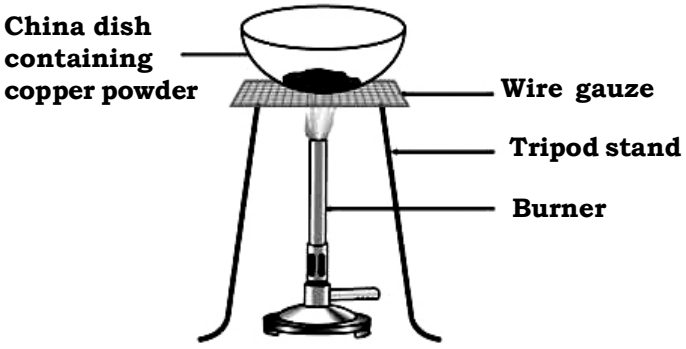
1. How will you join three resistances, each of 2 Ohm so that the effective resistance is 3 ohm? **1**

2. A potted plant is made to lie horizontally on the ground. Which part of the plant will show. **1**
   (i) positive geotropism,
   (ii) negative geotropism ?

3. Name two gases, other than carbon-dioxide that are given out during burning of fossil fuels and contribute towards acid rain formation? **1**

4. What is 'baking powder' ? How does it make the cake soft and spongy ? **2**

5. Look at the figure given below and answer the following question : **2**



   (a) Write the chemical reaction involved.
   (b) What are the colours of Cu and CuO ?
   (c) Can we reconvert CuO into Cu ? Write the reaction involved.

6. Give two methods by which we can increase the strength of magnetic field produced by a circular coil carrying current? **2**

7. Define the term 'fuel'. What are primary and secondary fuels? To which class of fuel do the following belong: Coke, Wood, Petroleum, LPG. **2**

8. What are combination reactions ? Given one example each of the following : **3**
   (i) Combination reaction of two elements.
   (ii) Combination reaction of a metal and a non-metal.
   (iii) Combination reaction of two compounds.

9. Name the constituent of the following alloys. **3**
   a) Stainless steel b) Brass
   c) Bronze d) Solder
   e) Amalgam f) Carat

10. Write note on galvanisation. **3**

11. Which is the following substances in water will not shoe acidic properties ? Sugar, alcohol, acetic acid, urea, nitric acid and carbon dioxide. **3**

12. Which rule is used find the direction of the force on a conductor in a magnetic field? Explain? **3**

13. A current-carrying straight conductor is placed in the east-west direction. What will be the direction of the force experienced by this conductor due to earth's magnetic field? How will this force get affected on? **3**
   (a) reversing the direction of floe of current
   (b) doubling the magnitude of current.

14. What is the difference between a direct current and an alternating current? What is the frequency of AC in India? How many times does AC used in India change direction in one second? **3**

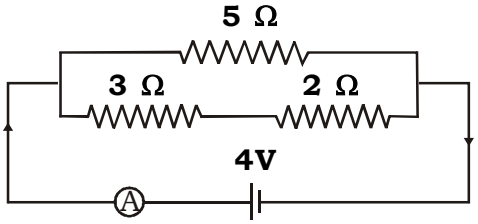
15. Why do the herbivores have longer whereas carnivores have a shorter small intestine ? **3**

16. Describe how auxine are related with the bending of shoots towards the source light ? **3**

17. (a) Identify the glands that secrete : (i) insulin, (ii) Thyroxin. **3**
   (b) Explain with an example how the timing and amount of hormone secreted are regulated in human body.

18. Describe how hydro energy can be converted into electrical energy. Write any two limitations by hydro energy. **3**

19. In the circuit given below, find i) total resistance ii) current shown by ammeter. **3**



20. Write short note on Thermite process taking Iron as an example. **5**

OR

What are the chemicals that are obtained from common salt? Explain how they are formed and their uses.

21. Give and explain the extraction of mercury and copper which lie low in the activity series. **5**

OR

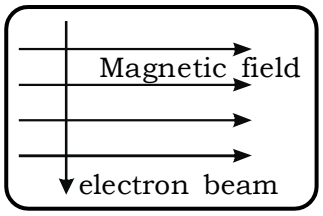
State the characteristics of chemical reactions with an example each.

22. Answer the following. **5**

i) what is an electromagnet

ii) Distinguish between a bar magnet and an electromagnet

iii) An electron beam enters a magnetic field at right angles to it as shown.
The direction of the force acting on the electron beam is .....



iv) A stream of positively charged alpha - particles moving towards west is deflected towards north by a magnetic field. The direction of magnetic field is .....

OR

What are magnetic field lines ? List any two characteristics of field lines. Draw the pattern of magnetic field of lines due to a current carrying circular loop.

23. i) State two advantage of a solar cooker page. **2**

ii) What is the condition needed for operating Ocean thermal energy (OTE) power plant. **1**

iii) Distinguish between solar energy and fossil fuel energy. **2**

OR

(a) With the help of a diagram describe an experiment to show that a change current flowing through a coil induces and electric current in a neighbouring coil. **3**

(b) What are magnetic field lines ? How is the direction of a magnetic field at a point determined ? **2**

24. (a) Explain the three pathways of breakdown in living organism during respiration. **5**

(b) What is the function of gastic glands presents in the wall of stomach ?

OR

(a) Draw a sectional of the following heat and lablel on it, Aorta, Right Ventricle and Pulmonary Veins.

(b) State the functions of the following components of transport system :
(i) Blood (ii) Lymph

SECTION - B

25. Brass is an alloy of. **1**
(a) Copper and Tin (b) Copper and Lead
(c) Lead and Tin (d) Zinc and Copper

26. Choose the acid salt from the following : **1**
(a) $NaNO_3$ (b) Na_2SO_4
(c) $NaHSO_4$ (d) Na_2CO_3

27. A strong acid in solution is **1**
(a) mostly molecules (b) mostly ions
(c) both molecules and ions (d) mostly water

28. The characteristic properties of an acid are due to presence of **1**
(a) hydride ions (b) hydroxyl ions
(c) hydronium ions (d) oxide ions

29. The correct formula for ammonium sulphate is **1**
(a) NH_4SO_4 (b) $(NH_4)_2SO_4$
(c) $(NH_3)_2SO_4$ (d) $(NH_4)_2(SO_4)_2$

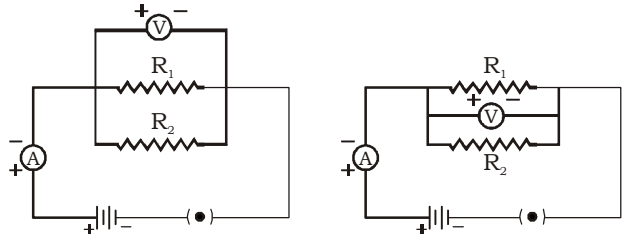
30. Which of the following is an incorrect formula ? **1**
(a) $NaCl_2$ (b) $BaSO_4$
(c) H_2CO_3 (d) P_2O_5

31. Of these, the most ductile metal is **1**
(a) Al (b) Au
(c) Cu (d) Ag

32. Among which of the following resistance does not depend : **1**
(a) length of conductor (b) area of cross-section
(c) temperature (d) density

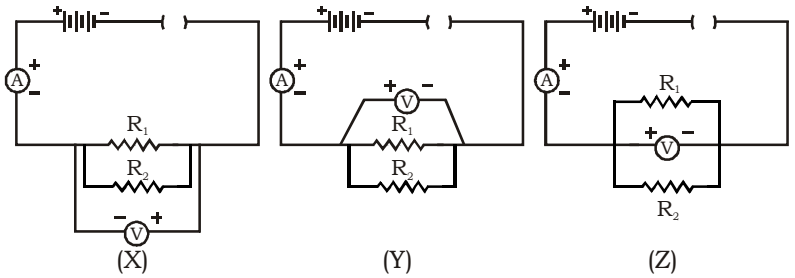
33. The rate of flow of an electric charge is known as : **1**
(a) electric potential (b) electric conductance
(c) electric current (d) none of these

34. Two students are using the circuits shown here. They are doing the experiment to find the equivalent resistance of a **1**



(a) series combination and a parallel combination, respectively of the two given resistors.
(b) parallel combination and a series combination, respectively, of the two given resistors.
(c) series combination of the two given resistors in both the case.
(d) parallel combination of the two given resistors in both the case.

35. In the experiment on finding the equivalent resistance of two resistors, connected in parallel, three students connected the voltmeter in their circuits, in the three ways, X, Y and Z shown here : **1**
The voltmeter has been incorrectly connected in :
(a) case X only
(b) case Y only
(c) case Z only
(d) All the three case



36. A student takes about 30 mL water and heats it from 30° C to 70°C. The density of water: **1**
(a) increases (b) decreases
(c) remains the same (d) may increases or decrease

37. The first step in photosynthesis is : **1**
(a) Photolysis of water
(b) Production of assimilatory power
(c) Excitation of chlorophyll
(d) Synthesis of ATP

38. Absorption of light energy by mesophyll cells of leaf causes : **1**
(a) Oxidation of chlorophyll (b) Excitation of chlorophyll
(c) Reduction of chlorophyll (d) Evolution of O_2

39. Which of the following animals has a system to provide atmospheric oxygen directly to the body cells : **1**
(a) Insects (b) Fishes
(c) Human beings (d) Frogs

40. To show that CO_2 is released during respiration, we take: **1**
(a) dry seeds (b) boiled seeds
(c) wet seeds (d) germinating seeds

41. The first step of breakdown of glucose takes in : **1**
(a) Nucleus (b) Mitochondria
(c) Cytoplasm (d) Lysosomes

42. Absorption of water by a root is increased by : **1**
(a) Increase in the transpiration
(b) Increase in the rate of photosynthesis
(c) Decrease in transpiration
(d) Decrease in salt up take

All the Best 👍

CBSE X	MT EDUCARE LTD.	Set - C
	SUBJECT : **SCIENCE**	Marks : 90
	SUMMATIVE ASSESSMENT - 1	
Date :	**MODEL ANSWER PAPER**	Time : 3 hrs.

SECTION - A

1.	A parallel combination of two resistances (which will be 1 ohm) joined in series with the third resistance (2 ohm)	**1**
2.	(i) Root (ii) Shoot (stem)	**1**
3.	Sulphur dioxide and Nitric oxide.	**1**
4.	Baking powder is a mixture of sodium hydrogencarbonate and a mild edible acid like tartaric acid. When baking powder is heated or mixed with water, the following reaction takes place : $NaHCO_3 + H^+ \longrightarrow CO_2 + H_2O +$ Sodium salt of acid (From the acid) Carbon dioxide evolved makes the cake soft and spongy.	**2**
5.	(a) $2Cu + O_2 \xrightarrow{heat} 2\ CuO$ (b) Cu powder is shiny brown white CuO is black. (c) Yes, by heating with hydrogen gas $CuO + H_2 \xrightarrow{heat} 2\ Cu + H_2O$	**2**
6.	The two methods by which we can increase the strength of magnetic field are given below:- 1. By increasing the number of turns of wire in the coil. -1mark 2. By increasing the current flowing through the coil. -1mark	**2**
7.	A material which produces heat on combustion is called a fuel. Primary fuels. Fuels which are used directly to produce heat are called primary fuels. Secondary fuels. Fuels which are manufactured by chemical process using primary fuels are called secondary fuels. Wood and Petroleum are primary fuels and Coke and LPG are secondary fuels.	**½** **½** **½** **½**

8.	(i) $Fe + S \longrightarrow FeS$ (ii) $2Na(s) + Cl_2(g) \longrightarrow 2NaCl(s)$ (iii) $CaO + SiO_2 \longrightarrow CaSiO_3$	**3**
9.	a) iron, nickel and chromium b) copper and zinc c) copper and tin d) lead and tin e) Metal and mercury f) gold and copper	**3**
10.	The process of depositing a thin layer of zinc metal on iron objects is called **galvanisation.** Galvanisation is done by dipping an iron object in molten zinc metal. A thin layer of zinc metal is then formed all over the iron object. This thin layer of zinc metal on the surface of iron object protects them from rusting because zinc metal does not corrode on exposure to damp air.	**3**
11.	sugar, alcohol, urea	**3**
12.	To find the direction of the force on a conductor in a magnetic field, a simple rule known as Fleming's left-hand rule is used. According to Fleming's left-hand rule, if you stretch the thumb, forefinger and middle finger of your left hand such that they are mutually at right angles, If the First finger points in the direction of the field. The second finger represents the direction of the current (in the classical direction, from positive to negative) then the thumb will point in the direction of the force acting on the conductor or in the direction of the resultant motion. This rule is used to know the direction of the induced current.	**1** **2**
13.	The direction of earth's magnetic field is from G-south to G-north. Let current is from west to east. Therefore force is vertically upwards. (a) By reversing the direction of current, the direction of will be reversed i.e. vertically downwards. (b) The magnitude of the force is doubled.	**1** **1** **½** **½**
14.	Direct current always flows in one direction but the alternating current reverses its direction periodically. The frequency of AC in India is 50 Hz. and in each cycle it alters direction twice. Therefore AC changes direction $2 \times 50 = 100$ times in one second.	**1** **1** **1**
15.	Herbivores eat grass which has maximum cellulose content. It needs greater time for digestion. Carnivores eat meat which is easier to digest. Therefore,	**3**

	herbivores need longer small intestine and carnivores need shorter small intestine.	
16.	When growing shoot is exposed to source of light coming from one side, it results in the uneqaldistribution of auxins on the two sides. The shaded side has more auxin as compared to lighted side. More auxin causes more growth in shaded side of shoot resulting in the bending of stem towards the source of light.	**3**
17.	(a) i) Insulin secreted by Pancreas ii) Thyroxin secreted by Thyroid gland. (b) The timing and amount of hormone released are regulated by feed-back mechanism. E.g. If sugar-level in blood rise, they are detected by Pancreatic cells which respond by producing more insulin.	**3**
18.	Hydro power plants :- In hydro power plants water from rivers are stored by constructing dams. The water from the dam flows down through pipes and rotates the turbines of generators to produce electricity. The potential energy of water stored in dams due to its position and shape gets converted into kinetic energy when allowed to flow which gets converted to mechanical energy by rotating the blades of turbines coupled to generator to generator to generate electricity. - 2 marks Two limitations by hydro energy. i) The initial cost is high. ii) It causes displacement of people from large areas of land. iii) as the large area get submerged in water posses threat to the existing life . iv) constructing large number of such dams may have a remote possibility of increasing the number of earth quakes. (any two 2 x ½ = 1)	**3**
19.	The resistances of 3 Ω and 2 Ω are in series. Their equivalent resistance = 3 Ω + 2 Ω= 5 Ω This combination is in parallel with the resistance of 5 Ω. So net resistance R is given by, $\frac{1}{R} = \frac{1}{5} + \frac{1}{5} = \frac{2}{5}$ or $R = \frac{5}{2} = 2.5\ \Omega$ $\therefore$ Current, $I = \frac{V}{R} = \frac{4}{2.5} = 1.6$ A.	**3**
20.	The reduction of a metal oxide to form metal by using aluminium powder as a reducing agent is called a thermite reaction (or thermite process). The	**5**

reactions of metal oxides with aluminium powder to produce metals are highly exothermic in which large amount of heat is evolved. In fact, the amount of heat evolved is so large that the metals are produced in the molten state. This property of the reduction of aluminium is made use of in welding for joining the broken pieces of heavy iron objects like griders, railways tracks or cracked machine parts. This is done as follows:
Aluminium reduces iron (II) oxide to produce iron metal with the evolution of lot of heat. Due to this heat, iron metal is produced in the molten state.

$Fe_2O_3(s)$ + 2Al (s) $\longrightarrow$ 2Fe (l) + Al2O3(s) + Heat

Iron(III) oxide Aluminium powder iron metal Aluminium oxide

The molten iron is then poured between the broken iron pieces to weld them (to join them). This process is called aluminiothermy or thermite welding.

OR

Sodium Hydroxide (NaOH) **5**

- When electricity is passed through an aqueous solution of sodium chloride (called brine) it decomposes to form sodium hydroxide.
- The process is called the chlor-alkali process because of the products formed – chlor for chlorine and alkali for sodium hydroxide.

$2NaCl\,(aq) + 2\,H_2O\,(l) \longrightarrow 2NaOH\,(aq) + Cl_2(g) + H_2\,(g)$

- Chlorine gas is given off at the anode and hydrogen gas at the cathode. Sodium hydroxide solution is formed near the cathode.
- The three products produced in this process are all useful.

Bleaching Powder ($CaOCl_2$)

- Bleaching powder is produced by the action of chlorine on dry slaked lime [$Ca(OH)_2$].

$Ca\,(OH)_2 + Cl_2 \longrightarrow CaOCl_2 + H_2O$

- It is also called chloride of lime (calcium oxychloride).
- **Uses** :
- For bleaching cotton and linen in the textile industry, for bleaching wood pulp in paper factories and for bleaching washed clothes in laundry.
- As an oxidizing agent in many chemical industries.
- For disinfecting drinking water to make it free of germs.

Baking Soda ($NaHCO_3$)

- The chemical name of the compound is Sodium hydrogencarbonate ($NaHCO_3$).
- It is produced using sodium chloride as one of the raw materials.

$NaCl + H_2O + CO_2 + NH_3 \longrightarrow NH_4Cl + NaHCO_3$

Ammonium chloride Sodium hydrogen carbonate

Properties :

- It is a mild non corrosive base. The following reaction takes place when it is heated during cooking.

$$\underset{\text{Sodium hydrogen Carbonate}}{2NaHCO_3} \xrightarrow{\text{Heat}} \underset{\text{Sodium Carbonate}}{Na_2CO_3} + H_2O + CO_2$$

- **Uses :**
- As an ingredient in antacids. Being alkaline, it neutralises excess acid in the stomach and provides relief.
- In soda acid fire extinguishers.
- For making baking powder, which is a mixture of baking soda and mild edible acid (tartaric acid), when baking powder is heated or mixed in water the following reaction takes place :

$$NaHCO_3 + \underset{\text{(from any acid)}}{H^+} \longrightarrow CO_2 + H_2O + \text{Sodium salt of acid}$$

Carbondioxide produced during the reaction causes bread or cake to rise making then soft and spongy.

- Note : tartaric acid neutralises sodium carbonate and thus prevents the cake from tasting bitter.
- It is used in the kitchen for making tasty crispy pakoras.
- Sometimes it is added for faster cooking.

Washing soda ($Na_2CO_3 . 10 H_2O$)

- The chemical name of the compound is sodium carbonate.
- Molecule of sodium carbonate contains 10 molecules of water of crystallization. Anhydrous sodium carbonate is commonly known as soda ash.
- It is obtained by heating baking soda ; recrystallisation of sodium carbonate gives washing soda. It is a basic salt.

$$Na_2CO_3 + 10H_2O \longrightarrow Na_2CO_3 . 10H_2O$$

- **Uses :**
- Sodium carbonate is used in glass, soap and paper industries.
- It is used in the manufacture of sodium compounds such as borax.
- Sodium carbonate can be used as a cleaning agent for domestic purposes.
- It is used for removing permanent hardness of water.

21. **Extraction of mercury :** Mercury metal can be extracted just by heating its sulphide ore in air. Mercury metal is produced from the sulphide ore called **cinnabar (HgS)**. The extraction of mercury from cinnabar ore involves the following two steps : **5**

⇨ The concentrated mercury (II) sulphide ore (cinnabar ore) is roasted in air, when mercury (II) oxide is formed :

$$\underset{\text{Mercury (II) sulphide (Cinnabar ore)}}{2HgS\,(s)} + \underset{\text{Oxygen (From air)}}{3O_2\,(g)} \xrightarrow[\text{Roasting}]{\text{Heat}} \underset{\text{Mercury (II) oxide}}{2HgO\,(s)} + \underset{\text{Sulphur dioxide}}{2SO_2\,(g)}$$

➪ When this mercury (II) oxide is heated to about 300°C, it decomposes (gets reduced) to form mercury metal :

$$2HgO(s) \xrightarrow[\text{Reduction}]{\text{Heat}} 2Hg\,(l) + O_2\,(g)$$

Mercury (II) oxide (Formed above) — Mercury metal — Oxygen

Thus, here mercury metal has been produced by the reduction of mercury (II) oxide by heat alone.

◆ **Extraction of copper :** Copper metal can be extracted just by heating its sulphide ore in air. One of the ores from which copper metal is produced is copper glance (Cu_2S), which is actually copper (I) sulphide. The extraction of copper from copper glance ore involves the following two steps :

➪ The concentrated copper (I) sulphide ore (Copper glance) is roasted in air, when a part of copper (I) sulphide is oxidised to copper (I) Oxide :

$$2Cu_2S\,(s) + 3O_2\,(g) \xrightarrow[\text{Roasting}]{\text{Heat}} 2Cu_2O\,(s) + 2SO_2\,(g)$$

Copper (I) sulphide (Copper glance ore) — Oxygen (From air) — Copper (I) oxide — Sulphur dioxide

➪ When a good amount of copper (I) sulphide has been converted into copper (I) oxide, then the supply of air for roasting is stopped. In the absence of air, copper (I) oxide formed above reacts with the remaining copper (I) sulphide to form copper metal and sulphur oxide :

$$2Cu_2O\,(s) + Cu_2S\,(s) \xrightarrow{\text{Heat}} 6Cu(S) + SO_2(g)$$

Copper (I) oxide (Formed above) — Copper (I) sulphide (From unoxidised ore) — Copper metal — Sulphur dioxide

OR

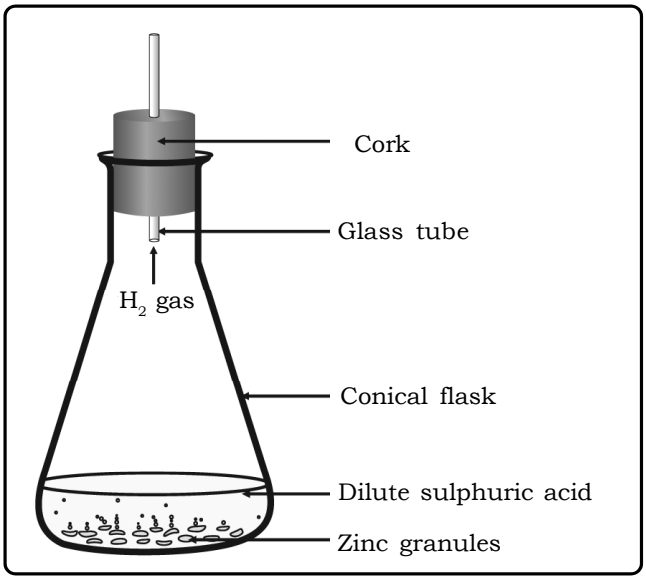
The conversion of reactants into products in a chemical reaction is often accompanied by some features which can be observed easily. The easily observable features (or changes) which take place as a result of chemical reactions are known as a characteristics of chemical reactions. **5**

- The important characteristics of chemical reactions are :
  - a change in state
  - a change in colour
  - a evolution of a gas
  - a change in temperature
  - a formation of precipitate
- Any one of these general characteristics can tell us whether a chemical

reaction has taken place or not.

- We will now give examples to show all these characteristics of chemical reactions.
- Evolution of gas and change in temperature

When zinc granules react with dilute sulphuric acid then bubbles of hydrogen gas are produced. If we touch the conical flask in which the above reaction is carried out, we will find that it is somewhat hot. So chemical reaction between zinc and dilute sulphuric acid is characterised by the evolution of gas and change in temperature.



- Formation of precipitate and change in colour

When potassium iodide solution is added to a solution of lead nitrate, then a yellow precipitate of lead iodide is formed. Thus, the chemical reaction between potassium iodide and lead nitrate is characterised by the formation of precipitate and a change in colour (from colourless to yellow).

- Change in state

The combustion reaction of candle wax is characterised by a change in state from solid to liquid and gas (because wax is solid, water formed by the combustion of wax is a liquid at room temperature whereas carbon dioxide produced by the combustion of wax is a gas).

22. **Answer the following**

i) If a soft iron rod called core is placed inside a current - carrying solenoid, then the strength of magnetic field becomes very large because the iron core gets magnetised by induction. This combination of a solenoid and a soft iron core is called an electromagnet. Thus, an electromagnet consists of a long coil of insulated copper wire wound on a soft iron core. **2**

ii) Distinguish between a bar magnet and an electromagnet. **2**

Permanent bar magnet	Electro magnet
1. It is a permanent magnet.	1. It is a temporary magnet. Its magnetism is only for that duration till the current flows through it.
2. It produces a weak magnetic force.	2. It produces a strong magnetic force.
3. Its strength can not be changed.	3. The strength of an electromagnet can be changed by changing the number of turns in the coil or by changing the quantity of current passing through it.
4. The north-south polarity of a permanent magnet is fixed.	4. The north-south polarity of an electromagnet can be changed

iii) into the page. **½**

iv) upwards / out of the page. **½**

OR

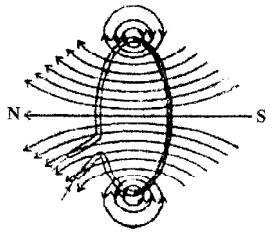
22. A magnetic field line is the path along which a free north pole tends to move. Characteristics: **5**

(1) Outside a magnet, the magnetic field lines are directed N-pole of magnet towards S-pole. However, inside a magnet field lines are directed from S-pole to N-pole.

(2) The relative strength of magnetic field lines is given by degree of closeness of the field lines. More crowded field lines means a stronger field.

(3) No two magnetic field lines can ever intersect each other. (Any two)

Diagram: Mabnetic field pattern of a current carrying loop.



23.

i) The advantage of a solar cooker are : **2**

(i) The use of solar cooker saves precious fuels like coal, kerosene and LPG.

(ii) Its use does not produce any smoke.

(iii) Since the food is cooked at a comparatively lower temperature in a solar cooker, its nutrients do not get destroyed.

(iv) In a solar cooker, upto four food items can be cooked at the same time.

ii) OTEC power plants can operate only if the temperature difference between the surface water and deeper water is 20°C or more. **1**

iii) Distinguish between solar energy and fossil fuel energy. **2**

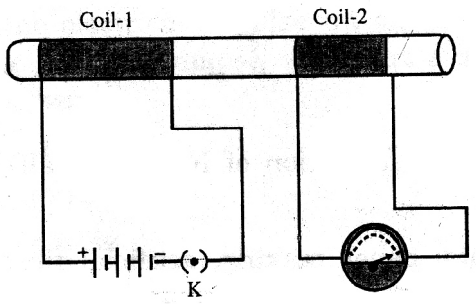
Solar Energy	Fossil Fuel Energy
1. Solar energy is freely available on a large scale all over the world.	1. **Fossil fuel are not ava**ilable abundantly all over the world.
2. The use of solar energy does not cause pollution and other environmental problem.	2. The use of fossil fuels lead to pollution and other environmental problem.
3. Solar energy is practically inexhaustible.	3. Fossil fuels are limited in nature.
4. It is not a concentrated source of energy.	4. It is a concentrated source of energy.

OR

23. Take two different coils of insulated copper wire having large number of turns (50 or even more). Insert the coils over a non-conducting cylinderical thick paper roll as shown in figure. Connect a battery of 6 V, a plug key K in series of coil-1. With coil-2 connect a sensitive galvanometer. Now put the plug in key K. Galvanometer joined with coil-2 also gives a momentary deflection and then pointer quickly returns to its mean position. **5**

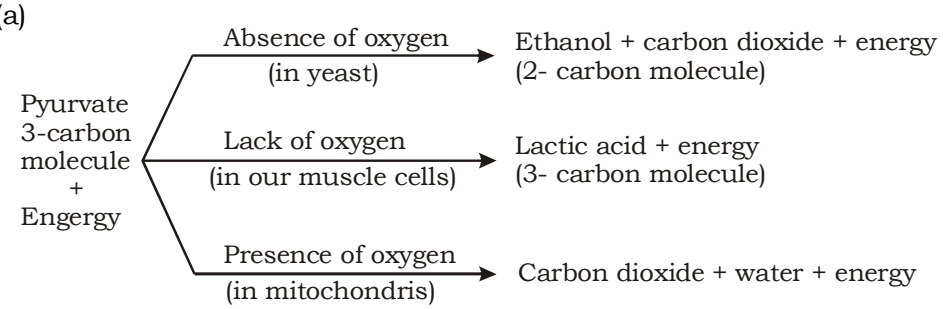
On removing plug from key K in coil - 1 the galvanometer reading becomes zero i.e, no deflection after a momentary deflection.

So we conclude that current is produced in coil - 2 on account of electromagnetic induction whenever current in coil - 1 is changing. 4 3



(b) A magnetic field line is the path along which a free north pole tends to move. The direction of a magnetic field at a point is determined by plating a small compass needle. The N-pole of compass indicates the direction of magnetic field at that point. **5**

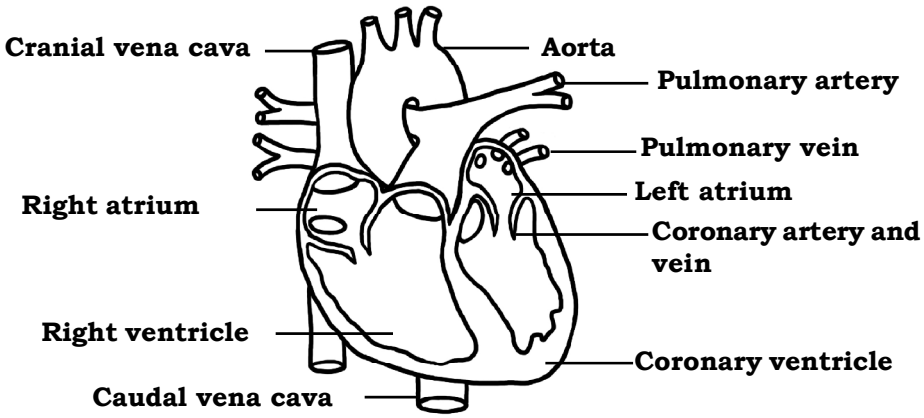
24. (a) **5**



(b) (i) Production of pepsin enzyme that digests protein.
(ii) Secretion of mucus for protection of inner lining of stomach.
(iii) Production of HCl which provides acidic medium for action of enzyme pepsin.

Or

(a)



5

(b) (i) Functions of blood : Transport of nutrients urea, hormones etc. WBC present in blood kill germs.
(ii) Function of Lymph : It carries digested and absorbed fat from intestine and drains excess fluid from extra cellular space back into the blood.

SECTION - B

25. (d) Zinc and Copper **1**
26. (c) $NaHSO_4$ **1**
27. (b) mostly ions **1**
28. (c) hydronium ions **1**
29. (b) $(NH_4)_2SO_4$ **1**
30. (a) $NaCl_2$ **1**
31. (b) Au **1**
32. (d) density **1**
33. (c) electric current **1**
34. (d) parallel combination of the two given resistors in both the case. **1**
35. (a) case X only **1**
36. (b) decreases **1**
37. (a) Photolysis of water **1**
38. (b) Excitation of chlorophyll **1**
39. (a) Insects **1**
40. (d) germinating seeds **1**
41. (c) Cytoplasm **1**
42. (a) Increase in the transpiration **1**

❖❖❖❖❖