



Name: _____ Date: _____ Section: _____

Q) Fill in banks with suitable words

- Acid reacts with carbonate to produce ----- gas.
- Change in state of matter is a ----- change
- is needed to bring about a chemical reaction.
- We use ----- to represent chemical reaction.
- Sulphur and Iron reacts to produce -----.

Q) Select the right answer from the given options:

I. Which of the following is a chemical change?

- Bursting of a fire cracker
- Germination of seed
- Coal formation
- all of these

II. In which type of change a new substance is formed

- Physical change
- Chemical change
- in both
- none of above

III. Lightening candle is a

- Physical
- Chemical
- Both
- None of above

IV. When a dilute acid reacts with certain metals _____ gas is produced.

- Carbon dioxide
- Hydrogen
- Chlorine
- Methane

Q) How can you distinguish between a thermal decomposition and combustion? Write their examples with respective word equations.



Q) Correct the highlighted incorrect words:

a. **Biomass** is an example of Non-renewable energy.

b. **Solar furnace** use energy from wind to generate electricity.

c. The heat energy trapped inside the Earth is called as **Hydrothermal energy**.

Q) If a serving of Biscuits packet gives 250 kilocalories of energy, how many calories are there in 1 calorie?

Q3: Prove that the Sun is the main energy resource of all other energies.

Q4: Why is there a need to conserve energy? How can you conserve energy in your daily life?

Q) Correct the following incorrect statements:

i. An open circuit is when there is a continuous path in the circuit.

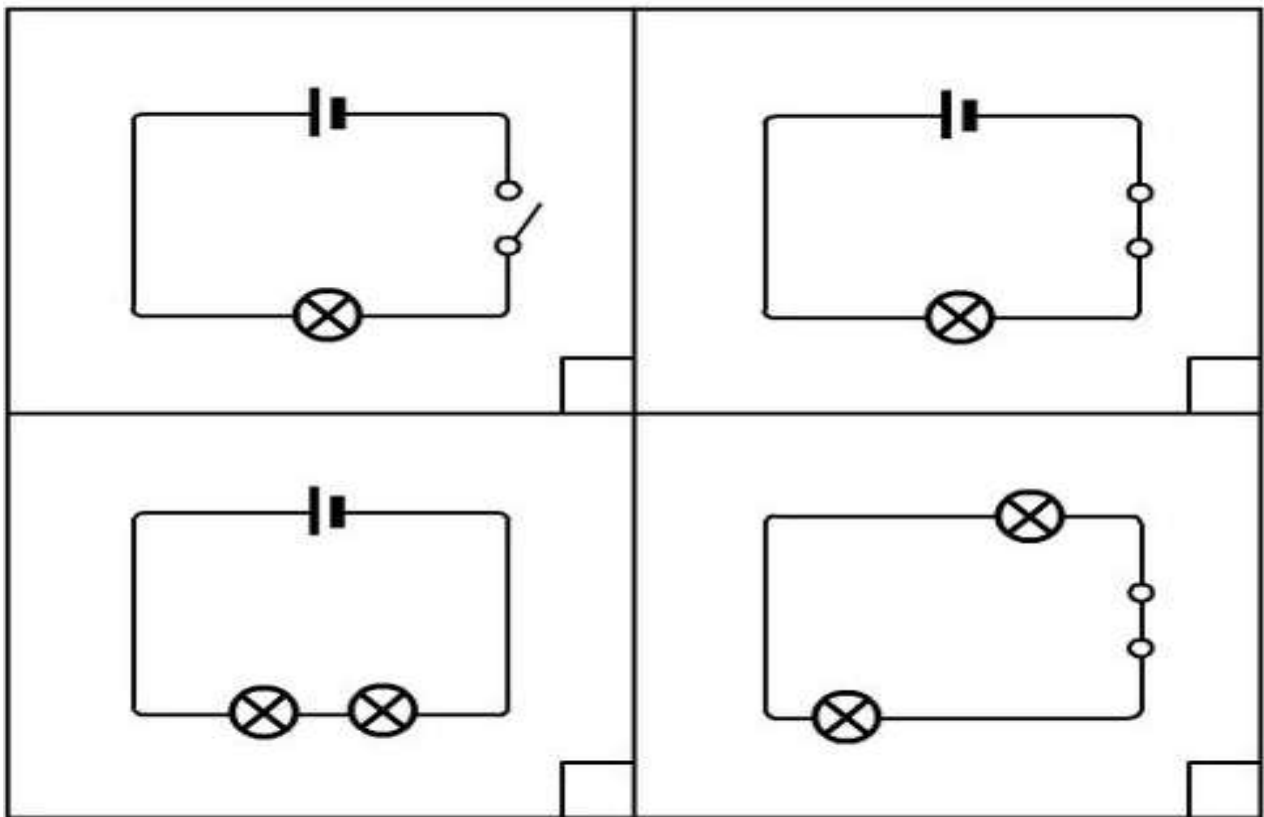
ii. A parallel circuit connects all components in one loop.



iii. Electric current is measured in Joules.

iv. A rheostat has fixed resistance.

Q) Look at each circuit diagram below. If you think the bulb or bulbs will light, put a tick in the box. If you do not think the bulb or bulbs will light, put a cross in the box.



Q) How can carbon dioxide gas be identified?



Q) Explain why the statues and marble buildings are affected by acid rain.

Q) Complete the following word equations:

a) Hydrogen + Oxygen _____

b) Copper carbonate _____

c) Methane + Oxygen _____

Q) Why do you think we should not mix unknown substances together?

Q) Arrange the followings according to their sizes.

Bacterium, plant cell, Virus, Human hair, Atom Animal cell

Q) State Bohr's Atomic Model.

Q) Why does an atom exist as a neutral particle?



Q) The atomic number of Chlorine is 17:

a. State the number of electrons and Protons in Chlorine.

b. Write down the name and symbol of the particle formed when Chlorine gains 1 electron?

c. Write down the chemical formula of the compound when one Hydrogen atom reacts with one chlorine atom.

Q) Identify the group of organisms by using the following hints:

a. They have dry scaly skin,
They are cold blooded,
Some live on land and some live on water,
They lay eggs with leathery shells
They belong to class (group) _____.

b. They have simple eyes and have one pair of antennae,
They have many legs, with two pairs on each segment,
They belong to class (group) _____.

Q) State the general characteristics of Arthropods.

Q) How are Angiosperms different from Gymnosperms? Give their examples as well



Q) Fill in the blanks:

- i. Mammals give birth to young ones except _____ and _____.
- ii. Invertebrates are without _____.
- iii. Crocodile, snake, lizard, tortoise are examples of _____ group of vertebrates.
- iv. The _____ animals maintain a constant temperature of their body.
- v. Vascular plants are classified into _____ and _____.

Q) Differentiate between an Element and Compound.

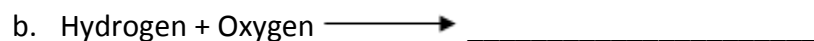
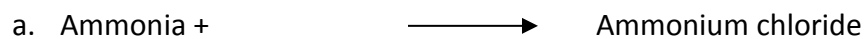
Element	Compound

Q) Classify the following into element and compound:

Sugar, Copper, Lead, Silicon, Water, Carbon monoxide, Mercury, Boron, Ammonia, Copper carbonate

Elements	Compounds

Q) Complete the following equations.





Q) Describe the function of parts of microscope given below:

a. Base

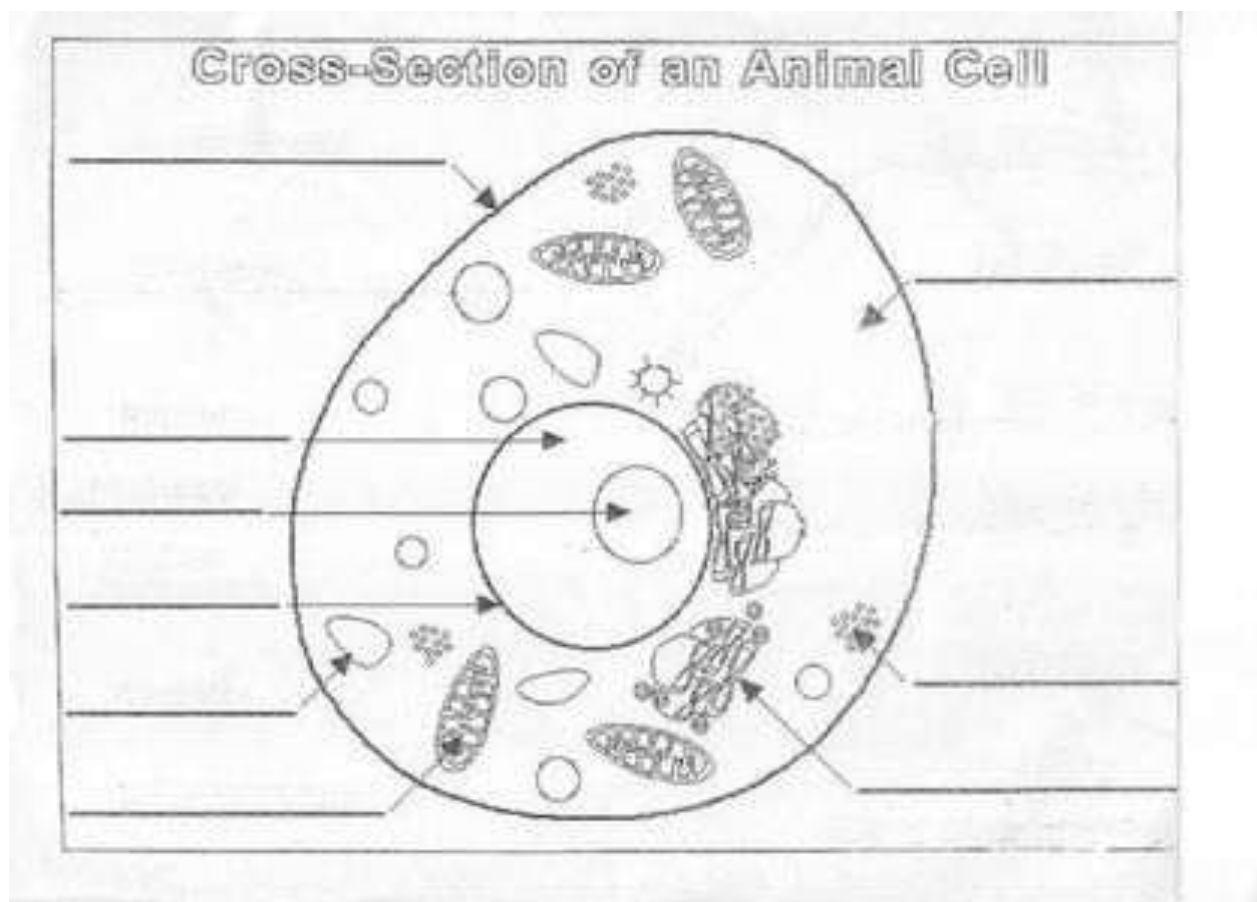
b. Objective lenses:

c. Focus knob

Q) Fill in the blanks:

- i. Chromosomes are made of _____ proteins.
- ii. Chloroplast contains a green pigment called _____.
- iii. _____ is filled with cell sap.
- iv. Plant cell has _____ shape.
- v. The cell that divide to produce two daughter cells.

Q) Label the diagram:



Q) Classify the following into elements, compounds and mixtures.



Sand, Bronze, Bromine, Sodium chloride (Common salt), Salt solution, Aluminum, Diamond, Muddy water, Milk, Marble (Calcium Carbonate)

Element	Mixtures	Compound

Q) Complete the following reactions, showing the formation of different compounds.



Q) Write example of some chemical reactions representing the following properties of compounds

i. Compounds can only be broken down into simpler substances by chemical reactions.

ii. The different elements in a compound are joined together in a fixed proportion by mass.

Q) Write reasons for the following statements:

i. Air is a mixture not a compound because:

ii. Metals are used in making wires. Because:

iii. Fractional distillation is used to separate different types of oils instead of using simple distillation because:



Q) Differentiate between a mixture and Compound.

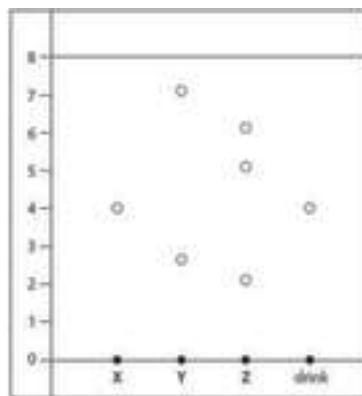
Mixture	Compound

Q) Identify the separation technique for the following mixtures:

	Mixtures	Separation technique
1	Sugar solution	
2	Iron filling and sand	
3	Drugs from blood sample	

Q) Charles used the chromatography technique to analyze his drink. Which component did he find in his drink x, y or z

Answer _____



Q) Correct the following incorrect statements:

i) Metalloids have the property of metals and as well of solids.

ii) The SI unit of density is cm^3 .

iii) Increasing the weight of submarine rather than the up thrust, helps in floating.

iv) The pH of water is 9.



v) Waxing gibbous is a decrease after a full moon.

Q) Write down the names of the following elements given below:

i. Calcium: _____

ii. Sodium: _____

iii. Chlorine : _____

iv. Sulphur : _____

v. Copper : _____

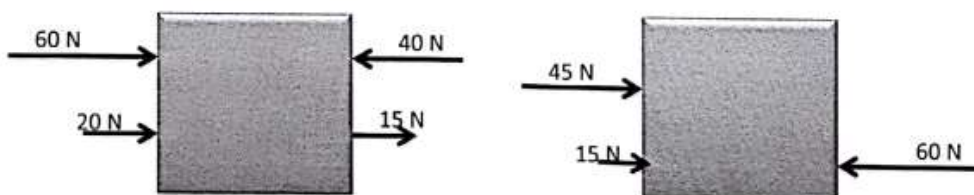
Q) Name the tissues that heart is made up of, what are these tissues in turn made up of?

Q) When Zinc is added to Hydrochloric acid two new substances, Zinc chloride and Hydrogen are formed:

i. Write word equation for the above chemical reaction

ii. Is Zinc chloride an element or a compound? Explain

Q) Are the forces balanced in each of the following situations. What will happen to the object in each case?





Q) Define the following:

a. Division of labour

b. Tissues

Q) Write the function of a Heart.

Q) Name the systems found in plants.

Q) What does the respiratory system do?

Q) Fill in the blanks:

- i. Force is measured in _____.
- ii. A _____ can speed up, slow down or stop moving object.
- iii. If someone pushes a box with a force of 50N and another person pulls it with the force of 30N, the resultant force will be _____.
- iv. A force has both size and _____.
- v. The gravity of _____ pulls the planets and their moons to orbit it.

Q) What is meant by Renewable energy resources? Give some examples.



Q) How can mass be differentiated to weight?

Q) The mass of a 50 cm³ is 25g, calculate its density.

Q) Define an element and give some examples of elements of daily use.

Q) Write symbols of following elements.

- a. Copper _____
- b. Gold _____
- c. Coal _____
- d. Silver _____
- e. Oxygen _____
- f. Mercury _____

Q) Write three uses of elements in daily life.



Q) Correct the following incorrect statements:

i. The Earth takes 300 days to make one revolution around the sun.

ii. The phases of the Moon are caused by the regular movement of the Moon around the Sun.

iii. It is the tilt of the Earth's axis which causes the day and night on Earth.

iv. Jupiter and Saturn do not have Moons.

Q) Write down the names of the planets from the heaviest to the lightest..

Q) Why do stars appear to move?

Q) What makes the Earth to sustain life?

Q) Write few uses of water as a solvent at home or in agriculture.



Q) How can solutions be used in medicines and industries.

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Q) What is solubility and what are the factors that affect solubility.

Q) Fill in the blanks:

- i. _____ was an English chemist who suggested that matter is made up of small particles which are like solid balls.
- ii. The movement of particles from region of high concentration to a region of lower concentration is called _____.
- iii. Solids have _____ density.
- iv. Liquids have definite _____ but indefinite _____.
- v. The state of matter depends on the _____ and _____ of motion of the small particles in the matter.

Q) Give reasons to the following statements:

- i. Gases easily can be compressed.

- ii. Solids have definite shape and definite volume.

iii. Liquids can flow.



Q) Differentiate between metals and non-metals with examples.

Metals	Non-metals

Q) Give reasons for the following statements.

a. Why is Copper widely used as electrical wires?

b. Metals are used in making jewelry.

Q) Define a compound.
