

TOPIC 1. ATOMS MOLECULES AND RADICALS

1. Define the following
 - a. Atoms, b. Molecules, c. Radicals, d. Valency e. Periodic table
2. What is atomicity explain with examples
3. Explain about two types of radicals
4. State any two relationship between valency of elements and periodic table
5. How do you write the chemical formula of a compound? explain with one example.
6. State any two significance of molecular formula
7. Give any two difference between atoms, molecules and radicals
8. What is variable valency? Give two examples of elements showing variable valency.
9. Name the elements present in the following compounds.
 - a. Common salt, b. Ammonia, c. Sulphuric acid, d. Glucose, e. Sodium hydroxide, f. Acetic acid
10. Name the following compounds.
 - a. $(\text{NH}_4)_2\text{SO}_4$ b. $\text{Ca}(\text{NO}_3)_2$ c. FeS d. Na_3PO_4 e. NH_4OH f. CuCO_3 g. HgO h. ZnCl_2
11. What is monatomic molecules?
12. Name the subatomic particles of atom
13. What is the charge of electron?
14. What is the charge of neutron? Where it is located in atom?
15. Explain the characteristics of atoms suggested by John Dalton.
16. Give two examples of basic radicals.
17. How many elements are present in periodic table?
18. State the first 20 elements name and their symbols
19. What is the other name of washing soda?
20. Give two examples of atom, molecule, radicals
21. Why phosphorus is called polyatomic molecules?
22. What is formula?
23. What is the chemical name of washing soda?

TOPIC 2. LANGUAGE OF CHEMISTRY

1. Define the following.
 - a. Chemical reaction, b. Chemical equation, c. Balanced chemical equation, d. Skeletal equation
2. State four conditions necessary for chemical reaction to take place.
3. What are the conditions necessary for chemical reactions?
4. What is catalyst? give one example.
5. State the six characteristics of chemical reactions.
6. Why do we need to balance chemical equations?
7. How to balance the chemical equation?
8. Differentiate reactants and products
9. Name the products formed, when water is added to quick lime?
10. Define law of conservation of mass.
11. Name the reactants and products. $\text{Na} + \text{H}_2\text{O} \rightarrow \text{NaOH} + \text{H}_2$
12. What is close contact?
13. What is precipitate? give one example.
14. State the formula of zinc sulphate.
15. What information do you get from the equation. $\text{H}_2 + \text{Cl}_2 \rightarrow 2\text{HCl}$
16. State the word equation: $2\text{KClO}_3 \rightarrow 2\text{KCl} + 3\text{O}_2$
17. Name the product when water is added to quick lime.
18. Name the chemical which is used in white washing.
19. Which chemical reaction is needed light?
20. If you heat potassium chlorate what product you will get
21. Why should a magnesium ribbon be cleaned before burning in air?

TOPIC3. METALS AND NON METALS

1. What are elements?
2. Define metals and non metals
3. What is rust?
4. How to prevent the rusting? Explain any two methods?
5. Name the metallic coating
6. Name any three non metals and its uses.
7. What are metalloids?
8. Give reasons.
 - a. Gold is mixed with copper and nickel,
 - b. Copper is used in making electric cables.
 - c. Magnesium is used in fire works
 - d. Aluminium is used in making aircrafts.
9. Name the metals present in the following alloys.
 - a. Brass
 - b. Bronze
 - c. Duralumin
 - d. Stainless steel
10. Give any two difference between metals and non metals.
11. Name the metal which is used as a thermometric liquid.
12. Name the non metals used for filling into electric blubs
13. State any two uses of iodine
14. Name the metalloid used in the manufacture of microchips used in computer
15. What is alloy?
16. What are the metals present in duralumin?
17. How many inert gases are there?
18. State the symbol of antimony.
19. Name the inert gas which is used for cancer treatment.
20. Which metal is called noble metal?
21. What is the chemical name of rust?

TOPIC4. AIR AND ATMOSPHERE

1. Define the following:
 - a. Pollutants,
 - b. Acid rain,
 - c. Global warming
2. What is air pollution? Suggest five measures to prevent air pollution
3. What is nitrogen fixation?
4. What are oxides? Give two examples for each of metallic and non-metallic oxides?
5. Why is potassium chlorate not used for laboratory preparation of oxygen
6. What is the role of manganese dioxide in the preparation of oxygen
7. What happens when oxygen gas is passed through alkaline pyrogallol solution?
8. Name the three types of oxidation process.
9. Give four uses of oxygen
10. How is oxygen naturally renewed in air?
11. Mention the abbreviations of CFC
12. Give one use of krypton.
13. Define nitrogen cycle.
14. Air is a mixture not a compound. Explain
15. What is the other name of azote?
16. Define humidity
17. Name two substances which undergo rapid oxidation.
18. Why is hydrogen peroxide preferred in the preparation of oxygen gas?
19. Name the main components of air
20. State three uses of water vapour in the air
21. Name the products formed when a candle burns in air
22. What is green house effect?
23. Give one difference between rusting and burning
24. State any two chemical properties of oxygen
25. What is the chemical name of limestone.