

Sample Paper – 2014

Class – X

Subject – Science

Chemical reactions and equations.

1. Why should a magnesium ribbon be cleaned before burning in air?
2. What is balanced chemical equation?
3. Why should chemical equation be balanced?
4. Give an example of double displacement reaction?
5. Why does colour of copper sulphate solution change when an iron nail is dipped in it?
6. What is exothermic and endothermic reaction?
7. Why respiration is considered an exothermic reaction?
8. What are the latest techniques used to prevent rancidity?
9. On what basis is a chemical equation is balanced?
10. Why all decomposition reactions are endothermic reaction?
11. When blue salt of copper sulphate is heated it becomes colourless? Why?
12. What does a word equation show?
13. What is meant by thermal decomposition reaction?
14. Explain law of conservation of mass?
15. Enlist importance of a chemical equation?
16. Define combination reaction?
17. What is oxidation?

18. What are oxidizing agents?
19. What are reducing agents?
20. Explain electronic concept of oxidation and reduction?
21. What is corrosion? Give 2 examples.
22. What is rusting?
23. Enlist conditions necessary for rusting?
24. State various methods used to prevent rusting?
25. Describe rancidity?
26. Oil and fat containing food items are flushed with nitrogen. Why?

Acids, Bases and salts

1. Aqueous solution of sodium carbonate is alkaline in nature. Explain why?
2. Why should curd and sour substances not to be kept in brass and copper vessels?
3. Which gas is usually liberated when an acid reacts with a metal?
4. Why does dry HCL gas does not change the colour of dry litmus paper?
5. Tap water conducts electricity whereas distilled water does not. Why?
6. What are acids?
7. Give features of acids?
8. What are indicators?

9. What are universal indicators?
10. What are bases?
11. Explain reaction of a Non-metallic oxide with base?
12. What is Plaster of Paris?
13. Enlist uses of Plaster of Paris?
14. Give uses of Washing soda?
15. How to prepare Washing soda?
16. How to prepare Bleaching powder?
17. Give uses of Bleaching powder?
18. What is the effect of heat on baking soda?
19. What is baking soda? How it is known chemically?
20. Give the chemical name of washing soda?
21. Give two examples of hydrated salt which are white and state their chemical formula?

Metals and Non-metals

1. What are Metals?
2. Explain physical properties of metals?
3. Explain chemical properties of metals?
4. What is reactivity series of metals?
5. What are Non-metals?
6. Explain physical properties of Non-metals?
7. Explain chemical properties of Non-metals?
8. Enlist properties of Ionic compounds?
9. What are minerals?

10. What are the steps involved in extraction of metals?
11. Give properties of an alloy?
12. Give an example of metal which is a poor conductor of heat?
13. Why sodium is kept immersed in kerosene oil?
14. Why do ionic compounds have high melting points?
15. Why magnesium ribbon starts floating when it is placed in hot water?
16. Write the electron-dot structure for sodium and chlorine acid?
17. Why most metals conducts electricity well?
18. Name the ore of mercury. How mercury is extracted from its ore?

Life processes

1. How do the guard cells regulate opening and closing of stomatal pores? Explain with the help on diagram.
2. Why nutrition a necessity for an organism?
3. What is likely to happen if green plants disappear from earth?
4. Draw a diagram of human alimentary canal.
5. List two vital functions of the kidneys?
6. What happen to glucose that enters the nephron along with filtrate?
7. Write two difference between autotrophic nutrition and heterotrophic nutrition?
8. What is nutrition?
9. What is excretion?
10. What is respiration?
11. What is breathing?

12. What are Autotrophs?
13. What is the role of acid in our stomach?