

6th Science Lesson 15 Questions in English

15] Chemistry In Everyday Life

1. Which of this process change the substance?

- a) **Chemical change**
- b) Ionization
- c) Physical change
- d) None of the above

Explanation

Materials are subjected to have physical or chemical changes. Chemical changes of a material result in change of the substance.

2. Which of these is called as a Natural Indicator?

- a) Chlorine
- b) Iodine
- c) Vegetable oil
- d) **Turmeric**

Explanation

Turmeric is found to be a natural indicator. The color change indicates the acidic or the base nature of a material.

3. Identify the correct statements below

- i) In Physical change only the size and shape of the matter changes.
 - ii) Egg boiling process is an example of physical change of a matter.
- a) **i only**
 - b) ii only
 - c) i and ii
 - d) None of the above

Explanation

The Physical changes in a material change the shape, size or volume and the state of a material. Boiling an egg is a chemical change as a new substance is formed and the process is irreversible.

4. Chemistry is the branch of science which deals with the study of _____ around us.

- a) Matter
- b) **Particles**
- c) Resources
- d) Process

Explanation

There are lots of studies that involved in Human evolution and understanding the substances around us. In that chemistry deals with the detailed study of various particles around human beings.

5. Which chemical is present in onion that causes irritation in our eyes?

- a) **Propanethial s-oxide**
- b) Solanum tuberosum
- c) Myristic acid
- d) 3-Methylethyl Butanoate

Explanation

The presence of chemical Propanethial s-oxide in onion gives irritation and tears in Human eyes. While cutting the onion the cells are damaged and the chemical changes into vapor and comes out. This causes irritation and tears in eyes.

6. Which of the following cause the fermentation of batter?

- a) Fungus
- b) **Bacteria**
- c) Protozoa
- d) None of the above

Explanation

In some food batters fermentation process is carried out by the bacteria present in it. These cause some chemical changes and make them soft and tastier.

7. What is the other name of soap making Sodium hydroxide?

- a) **Caustic soda**
- b) Aspirin
- c) Gypsum
- d) Potash alum

Explanation

Soaps are made by Lye (or) Sodium Hydroxide (or) Caustic soda with Coconut oil and water. Different soaps are prepared with different raw materials for various purposes.

8. Assertion (A): Depending on the nature of the alkali used in production soaps have distinct properties.

Reasoning (R): Potassium Hydroxide (KOH) is used for washing.

- a) Both A and R are true and R is the correct explanation of A.
- b) Both A and R are true and R is not the correct explanation of A.
- c) **A is True but R is False.**
- d) Both A and R are False.

Explanation

Soaps are salts made by combining an Alkali with fats or fatty acids. KOH is used to manufacture soft soaps which are useful for bathing.

9. Which of these are called as Principal Nutrients?

- a) **Nitrogen, Phosphorous, Potassium**
- b) Phosphorous, Potassium, Sodium
- c) Nitrogen, Sodium, Chlorine
- d) Magnesium, Potassium, Phosphorous

Explanation

Sunlight, Air and Water are needed for the growth of the plants. Apart from these some nutrients are also needed which are got from the soil. Nitrogen, Phosphorous and Potassium are three important nutrients which are called as Principal Nutrients.

10. How many types of Fertilizers are classified?

- a) 4
- b) 3
- c) **2**
- d) 5

Explanation

Fertilizers are classified as Organic and Inorganic based on the materials they use and the process by which they are made.

11. Identify the incorrect statements given below.

- i) Inorganic fertilizers are synthesized by micro-organisms.
- ii) Organic fertilizers are Urea, Ammonium Sulphate.
- iii) Organic fertilizers are very economical.

- a) i only
- b) **i and ii only**
- c) iii only
- d) ii and iii only

Explanation

Organic fertilizers are plants and animals based materials synthesized by microorganisms. They are also economical. Inorganic fertilizers are made in factories by chemical process. Urea , Ammonium Sulphate are some of the Inorganic fertilizers.

12. Earth worms take organic wastes as food and produce -----.

- a) **Compost castings**
- b) Inorganic fertilizers
- c) Super phosphate
- d) None of the above

Explanation

Earthworms take organic wastes as their food and produce compost castings. This compost is used to improve soil health.

13. Which plays the key role in controlling the rate of hardening the cement?

- a) **Gypsum**
- b) Water
- c) Clay
- d) Sand

Explanation

Cement becomes hard when water is added to it. Gypsum is used to control the rate of hardening of cement. Gypsum is added at the final process.

14. Match

- | | |
|----------------------|-------------------|
| 1. Mortar | A. Iron mesh |
| 2. Concrete | B. Binding Blocks |
| 3. Reinforced Cement | C. Bridges |

- a) **CBA**
- b) ABC
- c) BAC
- d) BCA

Explanation

Mortar is a cement paste which is used to bind the building blocks. Concrete mixture is used to construct bridges and dams. Reinforced cement is a composite material which has iron mesh and cement mix.

15. In which year Joseph Aspdin invented cement?

- a) 1823
- b) 1824**
- c) 1829
- d) 1880

Explanation

In 1824, Joseph Aspdin invented Portland cement by burning finely ground chalk and clay in kiln. It was also named as Portland cement.

16. Concrete is a mixture of
- a) Cement, Sand and water
 - b) Cement, Sand and gravel**
 - c) Cement , Iron mesh
 - d) None of the above

Explanation

Concrete is a mixture of Cement, Sand and Gravel. It is used in the construction of buildings, Dams and Bridges.

17. Identify the correct statements below.

- i) Gypsum is hard, white mineral
 - ii) It is naturally unavailable.
- a) i only
 - b) ii only
 - c) i and ii
 - d) None of the above**

Explanation

Gypsum is a soft white grey naturally available material. The chemical name of gypsum is Calcium Sulphate Dihydrate.

18. What is the chemical name of Gypsum?

- a) Sodium Hydroxide
- b) Calcium sulphate dihydrate**
- c) Potassium permanganate
- d) Hydrogen sulfate

Explanation

The Chemical name of Gypsum is Calcium Sulphate Dihydrate. The molecular formula of gypsum is $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$.

19. Usage of Epsom salts are,
- i) Medicine for skin problems
 - ii) Making of Plaster of Paris
 - iii) Construction industry
 - iv) Stress reliever
- a) i, ii, iv only
 - b) ii and iii only
 - c) **i and iv only**
 - d) iii only

Explanation

Epsom salts is also called as Magnesium Sulphate Hydrate. Used for various purposes. It is used for stress reliever and for body relaxation. Also used as a medicine for skin problems.

20. Which is used in making casts for statues and toys?
- a) Epsom
 - b) **Plaster of Paris**
 - c) Gypsum
 - d) None of the above

Explanation

Plaster of Paris which is named as it is found near Paris, France. It is prepared from the Gypsum. The Uses of plaster of Paris are in setting of fractured bones in surgeries for making casts for statues and toys.

21. Which Oil material is used for the cleaning purpose?
- a) **Phenol**
 - b) Epsom
 - c) Gypsum
 - d) Mortar

Explanation

Phenol is a carboic acid which is used for the cleaning purposes and as a disinfectant.

22. Identify the correct statements given below regarding Phenol.
- i) It is a strong Acid.
 - ii) It is Volatile.
 - iii) Grey Crystalline Material.
 - iv) Coloured solution

- a) i and iv
- b) ii and iii
- c) ii only**
- d) iv only

Explanation

Phenol is a weak acid. It is a volatile white crystalline powder. It is a colorless solution.

23. To which color Phenol solution changes if dust is present?

- a) White
- b) Blue
- c) Red**
- d) Green

Explanation

Phenol is basically a colorless solution which changes to Red color if any dust particles present in it.

24. Assertion (A): Phenol kills Microorganisms.

Reasoning (R): It is used as Surgical Antiseptic.

- a) Both A and R are true and R is the correct explanation of A.**
- b) Both A and R are true and R is not the correct explanation of A.
- c) A is True but R is False.
- d) Both A and R are False.

Explanation

Phenol is used in low concentrations in mouthwash and as a disinfectant for floor cleaning. As it kills the microorganisms it is also used as Surgical Antiseptic.

25. Adhesives are also known as,

- a) Glue
- b) Paste
- c) Mucilage
- d) All the above**

Explanation

Adhesives are a paste like substance which is commonly known as Glue, mucilage or paste.

26. From which of the following the natural adhesive is made?

- a) **Starch**
- b) Oils
- c) Minerals
- d) Salts

Explanation

Natural adhesives are made from starch and artificial adhesives are made from chemicals.

27. Artificial Adhesive is classified based on their _____.

- a) Making
- b) **Utilities**
- c) Chemical bonding
- d) Availability

Explanation

Artificial adhesives are made from chemicals. They are classified in various ways depending on their utilities. They have various forms like paste, liquid, film, pellets and tape.

28. Which is used as a disinfectant and cleaner?

- a) Gypsum
- b) **Diluted Phenol**
- c) Ethanol
- d) Methyl alcohol

Explanation

The diluted form of phenol is mostly used as a disinfectant in household cleaners and also in mouthwash liquids.

29. Adhesives are used to _____ two or more components.

- a) Transform
- b) **Join**
- c) Separate
- d) Fold

Explanation

Adhesives are substances that are used to join two or more components together through attractive forces across the interfaces.

30. Which of the following substance gives irritation to human skin?

- a) Iodine
- b) Chlorine
- c) **Phenol**
- d) None of the above

Explanation

Phenol is a carbolic acid. It irritates when exposed to human skin. It has a wide usage in industrial process.

31. Which increases the adhesive capacity at the surfaces for proper binding?

- a) Material
- b) **Pressure**
- c) Temperature
- d) Force

Explanation

Pressure increases the adhesive capacity at both of the surfaces for binding. This proper pressure ensures the binding correctly.

32. Choose the correct statements.

- i. Sunlight, water and air are essential for the growth of the plant.
- ii. Fertilizers are also essential for the growth of plants.

- a) **i only**
- b) ii only
- c) i and ii only
- d) None of the above

Explanation

Sunlight, Air and water are needed for the growth of the plant. Apart from these some nutrients from the soil is also essential for the growth of the plants.

33. Which of the following is used to produce a Basic Soap?

- a) Hydrogen
- b) Soda
- c) **Water**
- d) Acids

Explanation

A basic form of soap is made by mixing the fats or fatty acids with salts along with the water. Water is used to dissolve the salt content with the oil to begin the saponification process. Later some of the water evaporates and makes the soap harder.

34. According to which the nature of soaps is varied?

- a) Usage
- b) Process
- c) **Constituents**
- d) Color

Explanation

The Nature of the soap varies according to the constituents present in it.

35. Which of these are inorganic fertilizers?

- a) Urea
- b) Superphosphate
- c) Sodium Nitrate
- d) **All the above**

Explanation

Inorganic fertilizers are prepared by using natural elements to undergo some chemical changes in factories. Urea, Ammonium Sulphate, Sodium Nitrate and Super phosphate are some of the inorganic fertilizers.

36. Cement is manufactured by crushing natural materials like _____, clay and Gypsum.

- a) Water
- b) Sand
- c) **Lime**
- d) Gravels

Explanation

The cement is manufactured by crushing of naturally occurring minerals like lime, clay and gypsum through milling process.

37. What is added to control the setting of the cement?

- a) Water
- b) Sand
- c) Lime
- d) **Gypsum**

Explanation

Gypsum plays a vital role in controlling the rate of hardening of the cement. A small amount of gypsum is added to the final grinding process to control the setting of the cement.

38. Match

- | | |
|-----------------------|---|
| i) Gypsum | A. $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$ |
| ii) Epsom | B. $\text{C}_6\text{H}_5\text{OH}$ |
| iii) Plaster of Paris | C. $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ |
| iv) Phenol | D. $\text{CaSO}_4 \cdot \frac{1}{2} \text{H}_2\text{O}$ |
- a) BDCA
b) ADCB
c) **CADB**
d) ABCD

Explanation

The chemical name for gypsum is calcium sulphate dihydrate ($\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$)

Epsom salt is Magnesium sulphate dihydrate ($\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$)

Plaster of Paris is calcium sulphate hemihydrate ($\text{CaSO}_4 \cdot \frac{1}{2} \text{H}_2\text{O}$)

Phenol molecular formula is $\text{C}_6\text{H}_5\text{OH}$.

39. What type of compound is the Phenol?

- a) **Organic**
b) Inorganic
c) Acidic
d) Natural

Explanation

Phenol is a carbolic acid of an organic compound. It is a volatile weak acid.

40. By which of this process cement is manufactured?

- a) Heating
b) Mixing
c) Binding
d) **Milling**

Explanation

Cement is manufactured by crushing the natural minerals like Lime, Clay and Gypsum through milling process.

41. Which of these is indicated as the natural indicator by the chemists?

a) Turmeric powder

b) Neem

c) Common salt

d) Vitamin D

Explanation

Chemists identify turmeric powder as a '**natural indicator**'. The change in color indicates that the material is either acid or base medium.

42. How many types of fertilizers are classified?

a) 2

b) 3

c) 5

d) 7

Explanation

Fertilizers given to plants can be classified into two. They are organic and inorganic fertilizers.

43. What are the uses of the cement?

a) Mortar

b) Concrete

c) Reinforced cement concrete

d) All the above

Explanation

Cement is used as mortar, concrete and reinforced cement concrete.

44. Which is defined as the farmer's friend?

a) Earthworms

b) Ammonium

c) Water

d) Soil

Explanation

Earthworms are known as **Farmers' friends** because of the multitude of services they provide to improve soil health and consequently plant health.

45. Which of these are built by using reinforced cement concrete?

a) Bridges

b) Huge water tanks

c) Drainages

d) All the above

Explanation

Reinforced cement concrete is a composite material by mixing iron mesh with cement. This is very strong and firm. It is used in the construction of dams, bridges, centering works in houses and construction of pillars. Huge water tanks, water pipes and drainages are built with this.