



Science

Date: 27th December 1017.

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Q1. Give one word or short answers for

- i. Alkalis turn litmus paper into the color _____
- ii. In presence of Sodium Hydroxide, phenolphthalein turns into the color

- iii. What does density means _____
- iv. Group 1 metals react with water to give off the gas _____
- v. Reaction of rubidium with water _____
- vi. Two uses of calcium in body _____, _____
- vii. Concentrated means _____
- viii. How could 100 ml of acid be made dilute _____
- ix. Problem with concentrated acid which dissolves everything

- x. Sentence to explain neutralization _____

Q2. Complete the word and balanced symbolic equations

1. Magnesium in air

2. Carbon burns in air

3. Calcium reacting with hot water

4. Sodium with water

5. Zinc with sulphuric acid

6. Potassium with sodium hydroxide

7. Acid with Metal Carbonate

8. Potassium with water

9. Nitric acid with sodium hydroxide

10. Hydrochloric acid with potassium hydroxide

Q3. A student looked at reactions of different metals in sulphuric acid. He took same amount of metals into tubes of acid and timed how long it took until all the metal disappeared.

(a). Why did he use the same amount of metal in each tube?

(b) Why was the same amount of fresh acid used each time as well

(c) sort out the data by speed of reaction

(d) Draw a chart to show your sorted data on a graph paper

(e) All metals released a gas, name it

Metal	Time to dissolve (sec)
Aluminum	Did no dissolve
Calcium	40
Iron	100
Magnesium	30
Potassium	5
Sodium	10
Zinc	20

Q4. What happens when you place an iron nail in solution of copper sulphate.

Circle two correct answers

- Iron nail catches flame
- Liquid freeze
- Iron nail goes brown
- The solution becomes paler blue

Q5. Complete the table

Metal in solution	Solid metal added	Will the new metal displace the one in solution
Sodium	Iron	
Copper	Zinc	
Zinc	Calcium	
Calcium	Gold	
Potassium	Magnesium	

Q6. Suggest metal and a reason for a following

Use	Metal	Reason for your choice
A piece of jewellery		
A bucket		
A wire to carry electricity in a computer circuit		
A replacement knee joint		
A roof for a large department store		

Q7. Use the clues to fill the spaces across in this grid

					1	N					
			2			E					
						3 U					
			4			T					
			5			R					
						6 A					
					7	L					
8						I					
						9 S					
			10			E					

Clues across:

1. Alkaline chemicals we swallow to neutralize excess acid in our stomach. (7letters)
2. Substances that can neutralize acids. (5letters)
3. Too much acid in our stomach can make us. (5letters)
4. Formed when an acid reacts with an alkali. (4letters)
5. This atom in an acid reacts with the hydroxyl group in an alkali to make water. (8letters)
6. Turns litmus paper red. (4letters)
7. A base that dissolves in water. (6letters)
8. Sodium _____ is a very strong alkali. (9letters)

9. One of the alkali metals (6letters)

10. When an acid and an alkali reacts they produce salt and this liquid (5letters)

Q9. Choose the best answer :

1. Brass is

- An Element
- A Compound
- A Mixture
- An Alloy

2. Bronze is an alloy of

- Copper and Zinc
- Copper and Tin
- Lead and Copper
- Barium, Zinc and Iron

3. What are metals that can be stretched easily known as?

- Malleable Metals
- Stretchable Metals
- Ductile Metals
- Polymer Metals

4. Which of the following metals is often found in pure state?

- Iron
- Gold
- Magnesium
- Aluminum

5. With which metal does oxygen combine to form rust?

- Gold
- Silver
- Iron
- Platinum

6. Sodium is very reactive and may burn on exposure to air, hence it is kept under

- Water
- Oil
- Ice
- Acids

7. Rocks rich in metals are known as

- Metalloids
- Allotropes
- Slag
- Ores

8. Rust on iron is basically

- An Oxide
- A Chloride

- A Nitride
- A Sulphide

9. Which of the following does not belong to the group?

- Iron
- Sodium
- Oxygen
- Lead

10. Often to prevent corrosion, metals are galvanized by covering them with a layer of

- Copper
- Sodium
- Tin
- Zinc