CHEMISTRY

BOOKS - PEARSON IIT JEE FOUNDATION

METALS AND NON-METALS

Master Your Test Solved Example

1. What are elements ? Give two example of elements .

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2. What are compounds? Give two examples.

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3. How many elements are already present in nature?

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4. Out of 92 elements found naturally how many are metals and non-metals?

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5. _____is an ore of lead.

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6. _____is an ore of aluminium.

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7. _____is an ore of copper .

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8. What are noble metals?

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9. Name two noble metals.

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10. What are noble gases?

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11. Give examples of metalloids.

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12. What do you understand by metalloid?

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13. Give any two examples of the following :

Metalloids

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14. Give any two examples of the following :

Noble gases

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15. Give any two examples of the following :

Noble gases

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16. Give any two examples of the following :

Ores of iron

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17. Name one liquid metal and one liquid non-metal.

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18. Aluminium foils are used to wrap food items.

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19. Immersion rods for heating liquids are made up of metallic substances.

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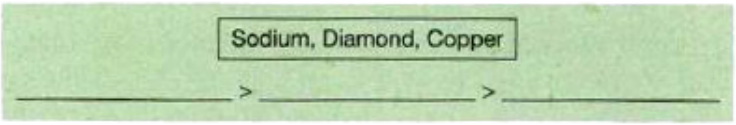
20. Arrange the substances given below in the order of increasing hardness.



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21. Materials such as coal and pencil lead do not show malleability property. Explain, why?

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22. Have you ever seen foils and wires made of non-metals such as carbon or oxygen? If not, then why?

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23. Name one metal and one non-metal which exist in liquid state at room temperature ?

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24. Non-metals are not as hard as metals. Name one exception which shows hardness.

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25. Give reason:

Metals like palladium, silver and gold are used to make jewellery

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26. Non-metals are dull and lack lustre property. Can you name two exception from this group.

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27. Explain why copper wires are used in electric circuits.

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28. Have you ever seen a bell made of a non-metal?

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29. What will happen when .

magnesium oxide is tested with blue litmus paper?

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30. What will happen when .

zinc is reacted with steam and a burning matchstick is brought close to the mouth of the test tube?

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31. What will happen when .

phosphorus is taken out of water?

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32. What will happen when .

iron is combined with dilute hydrochloric acid?

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33. Read the following elements and answer the below questions

Lead, Carbon, Nitrogen, Chlorine, Oxygen, Zinc

.

Classify them as metals and non-metals.

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34. Read the following elements and answer the below questions

Lead, Carbon, Nitrogen, Chlorine, Oxygen, Zinc

.

Identify the element which on reaction with acid produces pop sound.

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35. Read the following elements and answer the below questions

Lead, Carbon, Nitrogen, Chlorine, Oxygen, Zinc

.

Give the chemical reaction for zinc with dilute HCl.

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36. What happens when lead reacts with ammonium hydroxide?

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37. Using the following chemicals conc. $KOH, dilHCI, dilH_2SO_4$ convert the following reactions:

(a) Zn to $ZnSO_4$ (b) Na to $NaCl$.

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38. Identify the metals from below which justify the following questions. Copper, Silver, Gold, Platinum, Magnesium .

(a) Which metal will react with dil. H_2SO, and gives pop sound give reaction.

(b) Identify metals which will not react with dilute acids.

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39. What happens when sodium reacts rapidly with cold water?

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40. Name few metals which react neither with water nor with steam.

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41. Give the reaction when magnesium metal reacts with steam to form magnesium oxide.

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42. What happens when iron is exposed to moist air?

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43. What happens when sulphurous acid is tested with blue litmus?

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44. Name any two metals that can displace iron from iron sulphate solution.

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45. What happens to the colour of silver objects when they get corroded?

Watch Video Solution

46. Name any two processes used to prevent rusting.

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47. Name the most reactive metal in reactivity series.

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48. What is meant by reactivity series of metal?

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49. Name the least reactive metal.

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50. What is a displacement reaction?

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51. What happens when an iron nail is dropped in a solution of copper sulphate ?

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52. What happens when a piece of copper wire is dropped in iron sulphate solution?

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53. Why does ornaments made of gold and platinum retain their lustre even after several years?

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54. Discuss why it is important to prevent iron objects from rusting.

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55. Name any two alloys that contain copper.

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56. Sulphur is used in skin ointments.

Watch Video Solution

57. Copper is used for the galvanization of iron.

Watch Video Solution

58. Magnalium has a very low melting point.

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59. What do you understand by alloys?

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60. Why stainless steel is used for making kitchen utensils?

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61. Why nickel and molybdenum are used to make parts of jet engines?

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62. Name the two uses of graphite.

Watch Video Solution

63. Why sulphur is used as an insecticide?

Watch Video Solution

64. What do you understand by vulcanization?

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65. Which metal is used in the galvanization of iron and in making of dry cells which is used in electrical appliances.

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66. Name which of the non-metal is used for making matchboxes and firecrackers?

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67. Read the question below and try to answer them with the given option below .

Iron, Lead , Glod , Mercury, Platinum Uranium Zinc, Lithium , Sodium , Tin, Sliver,Aluminium, Nitrogen.

From the given option which are used for making parts of machinery and kitchen utensils.

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68. Read the question below and try to answer them with the given option below .

Iron, Lead , Glod , Mercury, Platinum Uranium Zinc, Lithium , Sodium , Tin, Sliver Nitrogen.

From the given options which of the them are used for making fertilizers used in agriculture .

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69. Read the question below and try to answer them with the given option below .

Iron, Lead , Glod , Mercury, Platinum Uranium Zinc, Lithium , Sodium , Tin, Sliver Nitrogen.

From the give options which are used for making tools, iron nails and chains.

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70. Name two alloys that contain aluminium.

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Track Your Learning I

1. Silicon and germanium are the example of _____.

A. metals

B. non - metals

C. metalloids

D. both (a) and (b)

Answer: C

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2. _____,the second most abundant element on Earth , is found in its found in its combined state on Earth , in the form of silica and silicates.

A. Silicon

B. Nitrogen

C. Sulphur

D. Carbon

Answer: A

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3. _____is mainly found in its free state in the atomosphere , more than three-fourths of which is composed of this element.

A. Nitrogen

B. Carbon

C. Oxygen

D. Kypton

Answer: A

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4. Helium and neon are non - reactive in nature and occur in their free state in the atmosphere. These non- metals are known as _____.

A. noble metals

B. noble gases

C. metalloids

D. non - metals

Answer: B

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5. A rock from which a metal can be extracted profitbaly , is called an_____of the metal .

A. ore

B. hematite

C. gangue

D. galena

Answer: A

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Track Your Learning Ii

1. _____can be beaten into thin sheets.

A. Zinc

B. Phosphours

C. Sulphur

D. Oxygen

Answer: A

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2. Which of the following statements is correct ?

A. All metals are dutile .

B. All non - metals are ductile

C. Generally , metals are ductile

D. Some non- metals are ductile .

Answer: C

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3. Metals are_____conductors of heat and _____.

A. bad light

B. good, light

C. good , electricity

D. bad , electricity

Answer: C

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4. Metals react with acids to produce ____ gas.

A. Hydrogen

B. Oxygen

C. Nitrogen

D. Carbon

Answer: A

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5. Non - metals ususally have low melting and boiling points. However,_____ is an exception have every high melting and boiling points.

A. Graphite

B. Carbon

C. Oxygen

D. Nitrogen

Answer: A

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6. The metling point of gold is about _____.

A. $1000^\circ C$

B. $1064^\circ C$

C. $1054^\circ C$

D. $1079^\circ C$

Answer: B

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7. Non - metal are bad conductors of electricity _____is an exception , as it is a good concductor of electricity .

A. Graphite

B. Lead

C. Bauxite

D. Hematite

Answer: A

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8. Metals are solid at room temperature _____is the only metal which is liquid at room temperature .

A. Bromine

B. Mercury

C. Oxygen

D. Chlorine

Answer: B

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9. Non - metals usually have desnities _____than $1g/cm^3$. Therefore, they float on water .

A. more

B. less

C. equal

D. Both (a) and (b)

Answer: B

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10. Most metals have very high melting and boiling points. Some metals , such as_____have low melting and boiling points .

A. Carbon

B. Graphite

C. Oxygen

D. Sodium

Answer: C

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Track Your Learning Iii

1. When phosphorus burns in, air _____is formed .,

A. phosphorus dioxide

B. phosphours oxide

C. phosphours pentoxide

D. phosphorus oxalate

Answer: C

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2. Magnesium oixde when mixed in water and turned red litmus to blue . This shown that magnesium oxide is ___in nature.

A. acdic

B. basic

C. neutral

D. reactive

Answer: B

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3. Sodium reacts vigorouly with oxygen at room temperature to from sodium oxide. To prevent explosion they are stored in _____.

A. oil

B. water

C. kerosene

D. sand

Answer: C

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4. Magnesium reacts with_____to form magnesium oxide.

A. water

B. cold water

C. steam

D. dil.HCl

Answer: C

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5. When iron reacts with the oxygen and water vapour present in air, this form a layer of _____iron oxide (Fe_2O_3).

A. reddish-brown

B. red

C. black

D. brown

Answer: A

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6. Metals do not show reactions with_____bases such as ammonium hydroxide.

A. strong

B. weak

C. both (a) and (b)

D. none of these

Answer: B

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7. Sulphuroous acid turned blue litmus to red. Generally oxides of non - metals are _____in nature.

A. basic

B. acidic

C. neutral

D. reactive

Answer: B

Watch Video Solution

8. Phosphorus is a very reactive non - metal . To prevent contact of phosphorus with oxygen, they are stored _____.

A. air

B. water

C. soil

D. kerosene

Answer: B

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Track Your Learning Iv

1. Which of these metals will react most vigrously with oxgyen ?

A. Tin

B. Mercury

C. Calcium

D. Aluminium

Answer: C

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2. The most common method used to prevent rusting is_____the surface of the metal after cleaning it thoroughly.

A. Rusting

B. Painting

C. Oiling

D. both (a) and (b)

Answer: B

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3. _____is a process specially employed to protect iron object from rusting .

A. Oiling

B. Painting

C. Rusting

D. Galvanization .

Answer: D

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4. Metals such as_____and platinum , being the least reactive , do not corrode at all .

A. Gold

B. Chromium

C. Agron

D. Neon

Answer: A

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5. The metals are eaten away when they are exposed to water, oxygen and other chemicals. What is this process known as ?

A. Rusting

B. Corrosion

C. Abrasion

D. None of these

Answer: B

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6. The _____colour is obtained on silver is due to the formation of silver sulphide.

A. Black

B. Green

C. Brown

D. Reddish - brown

Answer: A

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7. _____is the most reactive metal in the reactivily series .

A. Lithium

B. Mercury

C. Silver

D. Gold

Answer: A

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Track Your Learning V

1. Metals such as____are used for electroplating various objects such as bicycle parts and utensils.

A. Copper

B. Uranium

C. Zinc .

D. Lithium

Answer: A

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2. Metals such as copper and _____are used to make electrical wires .

A. Aluminium

B. Helium

C. Carbon

D. Sulphur

Answer: A

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3. Which liquid metal is used for making thermometers?

A. Nitrogen

B. Oxygen

C. Radon

D. Mercury

Answer: D

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4. _____is used in the galavnization of iron and in making of dry cells which is used in electrical appliances.

A. Sodium

B. Tin

C. Silver

D. Zinc

Answer: D

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5. _____is used as a lubricant in machines and for making electrodes.

A. Graphite

B. Lead

C. Platinum

D. Uranium

Answer: A

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6. _____,an alloy of tin helps in joining electrical wries .

A. Magnalium

B. Solder

C. Brass

D. Bronze

Answer: B

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7. _____,an alloy of iron non - corrosive in nature helps in kitchen utensils.

A. Stainless steel

B. Magnalium

C. Duralium

D. Bronze

Answer: A

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Hots Higher Order Thinking Skills

1. Write the name of a non-metal which shows the respective properites :

Is yellow and volatilizes at high temperatures.

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2. Write the name of a non-metal which shows the respective properites :

Is hard and has a high melting point .

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3. Write the name of a non-metal which shows the respective properites :

Is hard and has a high melting point .

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4. Write the name of a non-metal which shows the respective properites :

Has lustre but does not sublime on heating .

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5. Write the name of a non-metal which shows the respective properites :

Conducts electricity in the solid state .

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6. Write the name of a non-metal which shows the respective properites :

Present in the alloy which has wide application .

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7. Write the name of a non-metal which shows the respective properites :

Is liquid at ordinary temperature .

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8. Write the name of a non-metal which shows the respective properites :

Has high density .

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9. Write the name of a non-metal which shows the respective properites :

Forms an acidic and a neutral oxide.

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10. Which element finds application as a foil for wrapping food stuffs & Why ?.

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11. Which form of Sodium is preferred , Amalgmated sodium or sodium metal for use in the preparation of hydrogen ?

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12. For specific application why electricl wires are made of nichrome are preferred to copper wires.

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13. Zinc ia added to copper in the right proprotion for the manufacture of hardware and screws.

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14. Flexible pipes are generally made of lead.

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15. Aluminium utensils are preferred to copper utensils.

Watch Video Solution

16. Solder is preferred to lead for use in fuse wire .

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17. Pieces of copper, silver and gold are dropped into a solution of iron sulphate .Which elements out these will get a coating of copper .

A. silver

B. iron

C. gold

D. none of them

Answer:

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18. Galvanized iron undergoes rusting if there is a scratch on the zinc layer. Is this a correct statement or not ?

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Classroom Corner Multiple Choice Questions

1. _____ is an ore of aluminium.

A. Haematite

B. Bauxite

C. Chalcocite

D. Magnetite

Answer: B

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2. Which of these materials lacks hardness?

A. Lithium

B. Gold

C. Diamond

D. Copper

Answer: A

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3. Which of thes reactions will not produce hydrogen gas as a by-product?

A. Reaction of sodium with water

B. Reaction of zinc with sodium hydroxide

C. Reaction of iron with dilute hydrochloric acid

D. Reaction of zinc with oxygen

Answer: D

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4. Which of these metals can displace magnesium from magnesium sulphate solution?

A. Tin

B. Calcium

C. Mercury

D. Barium

Answer: C

Watch Video Solution

5. Which of these metals can displace magnesium from magnesium sulphate solution?

A. Iron

B. Calcium

C. Copper

D. Aluminium

Answer: B

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6. Which of these metals is not corrosive in nature?

A. Iron

B. Copper

C. Silver

D. Chromium

Answer: D

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7. Which of these substances is used to obtain vulcanized rubber?

A. Zinc

B. Phosphorus

C. Sulphur

D. Chromium

Answer: C

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8. A certain alloy is made using copper, along with zinc. It is resistant to corrosion and is

used to make utensils and musical instruments. Identify this alloy.

A. Bronze

B. Brass

C. Stainless steel

D. Magnalium

Answer: B

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9. The most reactive metal is _____.

A. Iron

B. Gold

C. Zinc

D. Potassium

Answer: D

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10. The liquid metal at room temperature_____.

A. Mercury

B. Bromine

C. Sodium

D. Gold

Answer: A

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11. Non-metals are _____.

A. generally liquids

B. gases

C. generally solids and gases

D. generally gases and liquids

Answer: C

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12. The metal which is stored in Kerosene _____.

A. Phosphorus

B. Magnesium

C. Sodium

D. Copper

Answer: C

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13. The non-metal which exists as a liquid at room temperature

A. Carbon

B. Iodine

C. Bromine

D. Chlorine

Answer: C

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14. Materilas around us can be classified into _____.

A. Elements and compounds

B. Metals and non-metals

C. Acids and base

D. None of these

Answer: B

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15. All metals are solids except_____.

A. Sodium

B. Calcium

C. Mercury

D. Hydrogen

Answer: C

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16. Metal oxides are of _____ nature.

A. Acidic

B. Basic

C. Neutral

D. All of these

Answer: B

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17. The soft metal which can be cut with knife is _____

A. Sodium and potassium

B. Barium and calcium

C. Sodium and mercury

D. Potassium and calium

Answer: A

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18. when non-metals react with water, then _____.

A. Hydrogen gas is formed

B. Carbon dioxide gas is formed

C. Non-metals do not react with water

D. None of these

Answer: C

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19. The three types of elements present in nature are metals, non-metals and _____.

A. Noble gases

B. Noble metals

C. Metalloids

D. Hydrocarbons

Answer: C

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20. The impurities present in an ore are called _____.

A. Alloy

B. Hematite

C. Gangue

D. None of these

Answer: C

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21. _____ and graphite are two lustrous non-metals.

A. Iodine

B. Chlorine

C. Sulphur

D. Mercury

Answer: A

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22. The property of metal by which it can be drawn into wires is called ___ .

A. Malleability

B. Ductility

C. Sonority

D. Hardness

Answer: B

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23. Mercury sinks in water due to its high _____.

A. Weight

B. Velocity

C. Density

D. Reactivity

Answer: C

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24. When metals react with water, _____ gas is formed.

A. Oxygen

B. Hydrogen

C. Water

D. Both (a) and (b)

Answer: B

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25. A reaction in which a more active metal displaces a less active metal from the solution of its salt is called a ____ reaction.

A. Decompostion

B. Displacement

C. Combination

D. Redox

Answer: B

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26. _____ is the process in which iron reacts with oxygen and water vapours present in air and turns into a reddish-brown substance.

A. Rusting

B. Electroplating

C. Vulcanization

D. Galvanization

Answer: A

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27. Which metal is used in thermometers?

A. Hydrogen

B. Potassium

C. Mercury

D. Sulphur

Answer: C

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28. A/An _____ is a mixture of two or more metals or of a few metals and a non-metal, which possesses properties useful for specific application.

A. Ore

B. Alloy

C. Gangue

D. Compounds

Answer: B

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Classroom Corner Comprehension Based Questions

1. Collect samples of some of the items such as copper wire, magnesium ribbon, sulphur powder and charcoal powder. Place these samples inside the separate test tubes. Now, add about 5 ml of dilute sulphuric acid to each sample. Observe if there is any reaction in each test tube. If not, gently warm the test tubes. Now, observe the reaction taking place.

Read the below question and try to answer them:

(a).When you observe a reaction in a test tube, bring a burning matchstick near its mouth.

Could you hear a pop sound? What does this tell us about the reaction?

(b).When you repeat the experiment with dilute hydrochloric acid. Can You hear a pop sound on bringing a burning matchstick near these test tubes as well? What does this show?

Sample		Copper wire	Magnesium ribbon	Sulphur powder	Charcoal powder
Dilute Sulphuric Acid	Observation at room temperature				
	Observation on heating				
Dilute Hydrochloric Acid	Observation at room temperature				
	Observation on heating				

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Classroom Corner Subjective Type Questions

1. What is malleability ? Name two most malleable metals.

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2. Name any one metal which can bend without breaking.

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3. What is ductility? Name the most ductie metal.

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4. Name the least ductile metal.

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5. What happens when samples of metals and non-metals are mixed with acids?

Watch Video Solution

6. What happens when the non-metals react with acids?

Watch Video Solution

7. Name one metal which catches fire easily.

Watch Video Solution

8. Explain why zinc replaces copper from copper sulphate ?

Watch Video Solution

9. What do you understand by corrosion? Give one example of corrosion.

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Classroom Corner Assertion Reason Type Questions

1. Name any two ores of Copper.

2. Name any two ores of Calcium.

3. Most of the metals can be beaten into sheets.This property is known as :-

4. Metallic oxides turns red lithmus paper:-

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5. State True or False :-

Carbon dioxide is a basic oxide.

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Classroom Corner Short Answer Type Question

1. State any three measures used to protect objects from corrosion.

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2. Why should acidic food items such as curd and pickles should not be stored in metallic utensils?

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3. Write balanced chemical equations representing each of the following reactions.

(a).Reaction between zinc and oxygen when zinc is subjected to heat.

(b).Reaction between magnesium and excess steam.

(c). Reactionbetween aluminium and dilute hydrochloric acid

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4. What happens when aluminum oxide reacts with nitric acid? Write the balanced chemical equation for the reaction of aluminum oxide with nitric acid.

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5. What is menal by (a) displacement reactinon, and (b) double displacement reaction ? Example with the help of one example each.

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6. Have you ever seen a blacksmith beating an iron piece? Do you find a change in the shape of these pieces on beating? Would you expect a similar change in wood log on beating?

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7. Why are metals good conductors of electricity.

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8. What happens when a magnesium ribbon is heated in presence of air?

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9. Discuss what happens when a copper vessel is exposed in moist air.

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10. Give reasons for the following.

Aluminium foils are used to wrap food items.

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11. Give reasons for the following.

Immersion rods for heating liquids are made up of metallic substance.

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12. Give reasons for the following.

Copper cannot displace zinc from its salt solution.

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13. Explain why sodium and potassium are stored in Kerosene?

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14. Can lemon pickle be stored in an aluminium utensil? Explain.

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15. Saloni took a piece of burning charcoal and collected the gas evoled in test tube.

How will she find the nature of the gas?

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16. Saloni took a piece of burning charcoal and collected the gas evoled in test tube.

Write down word equations of all the reactions taking place in the process.

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17. One day Kavita went to a jewellers shop with her mother. Her mother gave an old metal jewellery to the goldsmith to polish. Next day when they brought the jewellery

back, they found that there was a slight loss in its weight. Can you suggest a reason for the loss in weight?

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18. What happens when:

(a). Dilute sulphuric acid is poured on a copper plate?

(b).Iron nails are placed in a copper sulphate solution?

Which word equations of the reaction involved.(NCERT)

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19. Why is zinc used for galvanizing iron? Justify your answer.

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Classroom Corner Long Answer Type Question

1. Look at the pictures given below and answer the following question.

Coal

Iron nails

Write what these objects are made up of.

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2. Look at the pictures given below and answer the following question.

Coal

Iron nails

Write the differences between the materials used in the above two images.

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3. Write a balanced chemical equation to show the chemical reaction that would take place

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4. What would happen if blue and red litmus papers used to test the product of this reaction? Why?

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5. Would the reaction of potassium with water be more or less vigorous as compared to this reaction? Given a reason to support your answer

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6. Graphite is a non-metal that is similar to metals in many ways. Give few reasons to support this statement.

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7. State five uses of metals and five of non-metals.

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8. List the main properties and uses of the alloys given in the table below.

Alloys	Primary constituents	Important properties	Uses
Brass Duralumin Magnalium Solder			

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9. Given reasons for the following.

Non-metals are not used for making utensils and electrical wires.

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10. Given reasons for each of the following.

Sulphur is used in skin ointments.

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11. Given reasons for each of the following.

Phosphorus is stored inside water.

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12. Given reasons for each of the following.

Iron can displace copper from copper sulphate solution, but copper cannot displace iron from iron sulphate.

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13. Displacement reaction is a reaction in which a less reactive metal is displaced from its salt by a more reactive metal. From the reactivity series, we can find that metals

higher up in the series are more reactive than metals present lower in the series.

Write Yes or No For each of the following situations to show whether a displacement reaction can take place or not.

(a). Reaction between zinc sulphate and iron._____

(b). Reaction between iron oxide and aluminium._____

(c). Reaction between silver nitrate and copper. _____

(d). Reaction between aluminium phosphate and nickel_____

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14. In the table given below, Summarize the difference between metals and non-metals,on the basis of their two physical and chemical properties.

Properties	Metals	Non-metals

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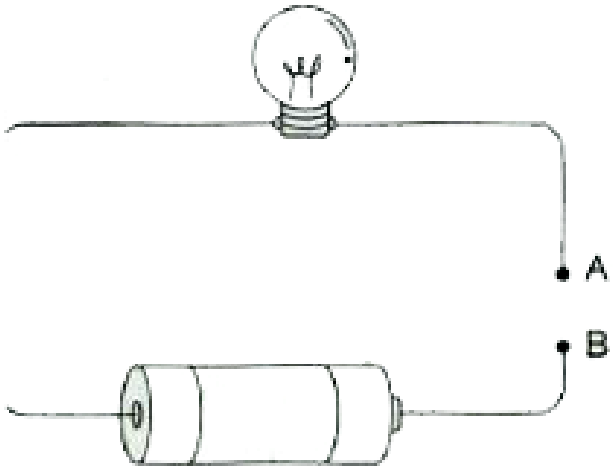
15. Make a simple electirc circuit using three copper wires, a bulb and a battery as shown in the figure given alongside. Now, collect the following items-an iron nail, a copper key, a strip of aluminium foil and a piece of coal. Place each of the collected items, one by one, between the points A and B such that the circuit is closed. Read the questions below and try to answer them



What do you understand from this activity?

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16. Using a pair of tongs, hold a piece of magnesium ribbon over a flame and heat it until the ribbon catches fire.Carefully, collect the white ash obtained from the burnt ribbon

in a china dish. Dissolve a little bit of this ash in a test tube containing water. Read the following questions and try to answer them

(a). Test this solution with read and blue litmus papers. What do you observe?

(b). What can you conclude about the reaction of metals with oxygen from this experiment?

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17. Take a small quantity of sulphur in a deflagrating spoon and heat it over the flame

of a Bunsen burner. As soon as the sulphur catches fire, lower the spoon into a gas jar and close it with a lid. Wait until the sulphur stops burning.

Once the sulphur stops burning, take the spoon out of the jar. Now, pour a small amount of water into the jar and quickly close the lid again. Shake the jar well so that the gas formed in the jar dissolves in the water.

(a). Test this solution formed in the jar with red and blue litmus papers. What do you observe?

(b). What can you conclude about the reaction

of non-metals with oxygen from this experiment?

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18. Find out about ores of different metals that are found in India and the parts of our country they are found in.

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Competition Corner

1. A certain alloy is made using copper, along with zinc. It is resistant to corrosion and is used to make utensils and musical instruments. Identify this alloy.

A. Brass

B. Bronze

C. Magnalium

D. Stainless steel

Answer: B

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2. Which of following is an element?

A. Carbon dioxide

B. Water

C. Iron

D. Soil

Answer: C

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3. Which of the following are the main constituents or alloy 'solder'?

A. Copper and zinc

B. Copper and tin

C. Lead and zinc

D. Lead and tin

Answer: D

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4. Which alloy is used to make balances and scientific instruments?

A. Brass

B. Bronze

C. Duralumin

D. Magnalium

Answer: B

Watch Video Solution

5. Which alloy is made up of chromium, nickel and iron?

A. Stainless steel

B. Bronze

C. Solder

D. Brass

Answer: A

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6. Which of these is an alloy?

A. Brass

B. Nickel

C. Sodium

D. Hydrogen

Answer: A

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7. Which non-metal is used for making pencil lead?

A. Silicon

B. Sulphur

C. Graphite

D. Selenium

Answer: C

 Watch Video Solution

8. Which process helps in hardening of rubber?

A. Galvanisation

B. Vulcanization

C. Conduction

D. Induction

Answer: B

Watch Video Solution

9. Which metal is used to make compasses, nails, and chains?

A. Magnesium

B. Sodium

C. Iron

D. Tin

Answer: C

Watch Video Solution

10. Which metal is used in thermometers?

A. Calcium

B. Mercury

C. Barium

D. Zinc

Answer: B

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11. Which of these causes rusting of iron?

A. Electroplating the metal surface

B. Painting the metal surface

C. Washing the metal surface

D. Oiling the metal surface

Answer: C

Watch Video Solution

12. Write the formula of rust.

A. FeO

B. Fe_2O_3

C. Fe_3O_4

D. Fe_3O_5

Answer: B

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13. What change is observed on copper surface due to the action of air and moisture?

A. Appearance of brown powder

B. Appearance of green powder

C. Formation of black coating

D. Formation of silver flakes

Answer: B

Watch Video Solution

14. Identify the process in which metals are gradually eaten by exposure to air and moisture.

A. Corrosion

B. Gangue removal

C. Physical reaction

D. Reversible reaction

Answer: A

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15. Why is mercury placed below hydrogen in the metal reactivity serices?

A. It has a high density.

B. It is more reactivity

C. It has more mass.

D. It is less reactive.

Answer: D

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16. Which metal can displace copper from copper sulphate solution?

A. Nickel

B. Lead

C. Iron

D. Tin

Answer: C

Watch Video Solution

17. Which of these is the least reactive metal?

A. Zinc

B. Lead

C. Nickel

D. Platinum

Answer: D

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18. The arrangement of metals on the basis of their reactivity is known as _____.

A. Reactivity series

B. Reactivity table

C. Activity series

D. Activity table

Answer: A

Watch Video Solution

19. Which metal reacts with water or steam?

A. Platinum

B. Copper

C. Silver

D. Iron

Answer: D

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20. What is the product of the reactive between sulphur dioxide and water?

A. Oxygen

B. Sulphur

C. Sulphuric acid

D. Sulphurous acid

Answer: D

 Watch Video Solution

21. Which factor is important in the formation of zinc oxide?

A. High temperatures

B. Low temperatures

C. High pressures

D. Low pressures

Answer: A

Watch Video Solution

22. What is formed when metals are burnt in air ?

A. Metal sulphates

B. Metal sulphites

C. Metal oxides

D. Metal salts

Answer: C

Watch Video Solution

23. Which metal has the lowest density?

A. Iron

B. Gold

C. Sodium

D. Mercury

Answer: C

Watch Video Solution

24. Which metal is a poor conductor of electricity?

A. Copper

B. Silver

C. Lead

D. Iron

Answer: C

Watch Video Solution

25. Which is the most malleable and ductile metal?

A. Gold

B. Lead

C. Lithium

D. Sodium

Answer: A

Watch Video Solution

26. Which metal is a liquid at room temperature?

A. Aluminium

B. Mercury

C. Copper

D. Brass

Answer: B

Watch Video Solution

27. Which of these is present in various froms in the Earth's crust?

A. Iron

B. Gold

C. Silica

D. Platinum

Answer: C

Watch Video Solution

28. Which of these is a noble gas?

A. Hydrogen

B. Nitrogen

C. Oxygen

D. Neon

Answer: D

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29. Which of these is an ore of copper?

A. Galena

B. Bauxite

C. Haematite

D. Chalcocite

Answer: D

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30. Metals are found in the Earth's crust in the form of _____.

A. Atoms

B. Minerals

C. Elements

D. Molecules

Answer: B

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31. The substance that combine chemically in a fixed ratio are called_____.

A. Atoms

B. Elements

C. Molecules

D. Compounds

Answer: D

Watch Video Solution

32. Which of these is an elements?

A. Iron

B. Water

C. Carbon dioxide

D. Sodium chloride

Answer: A

 Watch Video Solution

33. Which of these metals will react most vigrously with oxgyen ?

A. Aluminium

B. Mercury

C. Calcium

D. Phosphorus

Answer: C

Watch Video Solution

34. Which of these substances is used to obtain vulcanized rubber?

A. Zinc

B. Sulphur

C. Chromium

D. Phosphorus

Answer: B

Watch Video Solution

35. Which of these metals is not corrosive in nature?

A. Iron

B. Silver

C. Copper

D. Platinum

Answer: D

Watch Video Solution

36. Which of these metals can displace magnesium from magnesium sulphate solution?

A. Aluminium

B. Calcium

C. Copper

D. Iron

Answer: B

Watch Video Solution

37. Which of these is the least reactive metal?

A. Tin

B. Barium

C. Calcium

D. Mercury

Answer: D

 Watch Video Solution

38. Which of these reactions will not produce hydrogen gas as a by-product?

A. Reaction of zinc with oxygen.

B. Reaction of sodium with water.

C. Reaction of zinc with sodium hydroxide.

D. Reaction of iron with dilute hydrochloric acid.

Answer: A

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39. Which of these materials lacks hardness?

A. Gold

B. Lithium

C. Copper

D. Diamond

Answer: B

 Watch Video Solution

40. _____ is an ore of aluminium.

A. Haematite

B. Chalcocite

C. Magnetite

D. Bauxite

Answer: D

 Watch Video Solution

41. Aluminium reacts with dilute sulphuric acid to give out gas X which produces a characteristic pop sound when it is burnt. Which of these is gas X?

A. Hydrogen

B. Carbon dioxide

C. Sulphur dioxide

D. Aluminium oxide

Answer: A

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Watch Video Solution

42. Sareena wants to join the ends of two pieces of electrical wire together. Which of these alloys can she use for this purpose?

A. Stainless steel

B. Magnalium

C. Bronze

D. Solder

Answer: D

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43. Which of these is an alloy of aluminium, copper, manganese and magnesium?

A. Stainless steel

B. Magnalium

C. Duralumin

D. Solder

Answer: C

Watch Video Solution

44. Which of these is an alloy?

A. Nickel

B. Bronze

C. Chromium

D. Molybdenum

Answer: B

 Watch Video Solution

45. Which of these metals can be used to make magnets?

A. Copper

B. Gold

C. Zinc

D. Iron

Answer: D

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46. Which of these techniques used to prevent rusting of objects does not involve the coating of an iron object with a layer of another material?

A. Alloying

B. Painting

C. Electroplating

D. Galvanisation

Answer: A

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47. What is the color of corroded iron?

A. Reddish-brown

B. Green

C. White

D. Black

Answer: A

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48. An unknown metal X when placed in copper sulphate solution gives a red brown deposite. When placed in magnesium sulphate solution, gives no reaction. Identify element X.

A. Sodium

B. Potassium

C. Calcium

D. Iron

Answer: D

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49. A reaction between which of these metals and bases is not possible?

A. Aluminium and potassium hydroxide

B. Lead and ammonium hydroxide

C. Lead and sodium hydroxide

D. Zinc and sodium hydroxide

Answer: B

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50. Upon brining the flame of a burning matchstick or candle near which of these reactions will you not be able to hear a pop sound?

A. Reaction between sodium and cold water

B. Reaction between magnesium and oxygen

C. Reaction between zinc and dilute sulphuric acid

D. Reaction between aluminium and dilute hydrochloric acid

Answer: B

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51. Which of these metals would react vigorously with dilute hydrochloric acid?

A. Magnesium

B. Potassium

C. Aluminium

D. Iron

Answer: B

Watch Video Solution

52. Which of these metals does not react with cold water but rects with steam to from an oxide or a hydroxide?

A. Zinc

B. Copper

C. Sodium

D. Calcium

Answer: A

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53. Which of these metals reacts most vigorously with air?

A. Magnesium

B. Sodium

C. Silver

D. Zinc

Answer: B

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54. Sanya is testing each of the following chemical compounds with blue and red litmus papers. Which of these compounds will turn blue litmus to red?

A. Magnesium oxide

B. Carbon dioxide

C. Sodium oxide

D. Zinc oxide

Answer: B

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55. Why metals such as copper, iron and aluminium are used to make kitchen utensils?

A. They are good conductors of electricity.

B. They are bad conductors of electricity.

C. They are good conductors of heat.

D. They are bad conductors of heat.

Answer: C

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56. Which of these objects will sink in water?

A. A piece of lithium.

B. A piece of copper.

C. A piece of sodium.

D. A piece of potassium.

Answer: B

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57. Naresh is constructing a simple electric circuit using electrical wires, an electric bulb and a battery. However, the length of the electrical wires that he chooses is shorter than

required and now he needs some additional object to complete his circuit. Which of these material can be use to complete his electric circuit so that current can flow through it?

A. Piece of wood

B. Aluminium foil

C. Plastic spoon

D. Copper wire

Answer: B

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58. Which of these metals will you be able to easily cut with a knife?

A. Sodium

B. Copper

C. Gold

D. Iron

Answer: A

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59. Which of these is a metalloid?

A. Arsenic

B. Krypton

C. Barium

D. Helium

Answer: A

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60. Coal, graphite and diamond are different froms of _____.

A. Iron

B. Carbon

C. Copper

D. Aluminium

Answer: B

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61. Which of these is the most abundant elelment in the universe?

A. Hydrogen

B. Nitrogen

C. Oxygen

D. Carbon

Answer: A

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62. Which of these metals is the least reactive?

A. Copper

B. Gold

C. Lead

D. Iron

Answer: B

Watch Video Solution

63. Which of these metals will be present in their ores in their free state and not in the form of compounds?

A. Aluminum

B. Copper

C. Silver

D. Iron

Answer: C

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64. Which of these chemical substances is made up of atoms of more than one kind?

A. Oxygen

B. Iodin

C. Water

D. Iron

Answer: C

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