



Materials: Metals and Non-Metals

Question 1.

The metal having fastest rate of formation of bubbles of hydrogen with dil. HCl is

- (a) zinc
- (b) copper
- (c) magnesium
- (d) silver

▼ [Answer](#)

- (c) magnesium

Magnesium is higher in reactivity series therefore the rate of formation of bubbles of hydrogen with dil HCl is fastest.

Question 2.

The non-metal which has very high melting point is:

- (a) sulphur
- (b) iodine
- (c) phosphorus
- (d) graphite

▼ [Answer](#)

- (d) graphite

Graphite is a non-metal having very high melting point.

Question 3.

The non-metal which is good conductor of electricity is:

- (a) sulphur
- (b) iodine
- (c) phosphorus
- (d) graphite

▼ [Answer](#)

- (d) graphite

Graphite is the only non-metal which is a good conductor of electricity.

Question 4.

The non-metal which is liquid at room temperature is:

- (a) chlorine
- (b) bromine
- (c) iodine
- (d) carbon

▼ [Answer](#)

(b) bromine

Bromine is the non-metal which is liquid at room temperature.

Question 5.

The colour of chlorine is:

- (a) yellow
- (b) white
- (c) green
- (d) yellowish green

▼ [Answer](#)

(d) yellowish green

The colour of chlorine is yellowish green.

Question 6.

The metal which cannot be stored in packets is:

- (a) sodium
- (b) calcium
- (c) magnesium
- (d) zinc

▼ [Answer](#)

(a) sodium

Sodium cannot be stored in packets because it will catch fire.

Question 7.

The metal which is poorest conductor of heat is:

- (a) mercury
- (b) zinc
- (c) lead
- (d) copper

▼ [Answer](#)

(c) lead

Lead is the metal which is poorest conductor of heat.

Question 8.

Property of producing sound by metals is called:

- (a) malleability
- (b) sonority
- (c) ductility
- (d) none of these

▼ [Answer](#)

(b) sonority

Sonority is the property of producing sound by metals.

Question 9.

The metal which develops a protective layer over its surface by reaction with air is:

- (a) zinc
- (b) aluminium
- (c) iron
- (d) silver

▼ [Answer](#)

(b) aluminium

Aluminium metal develops a protective layer of aluminium oxide over its surface by reaction with air.

Question 10.

The metal not corroded by air, water and acid is :

- (a) copper
- (c) gold
- (b) zinc
- (d) aluminium

▼ [Answer](#)

(c) gold

Gold metal is not corroded by air, water and acid because one of the least reactive metals in reactivity series.

Question 11.

The metal which is soft is:

- (a) sodium
- (c) silver
- (b) gold
- (d) copper

▼ [Answer](#)

(a) sodium

Sodium metal is soft whereas gold, silver and copper are solids.

Question 12.

The correct statement is:

- (a) all metals are ductile
- (c) generally, metals are ductile
- (b) all non-metals are ductile
- (d) some non-metals are ductile

▼ Answer

(c) generally, metals are ductile

Generally, metals are ductile. Sodium, potassium, calcium etc. are not ductile.

Question 13.

When copper is added to iron sulphate solution:

- (a) iron is displaced
- (b) SO_4 is displaced
- (c) no reaction takes place
- (d) none of these

▼ Answer

(c) no reaction takes place

When copper is added to iron sulphate solution then no reaction takes place because copper is below iron in reactivity series.

Question 14.

Arrange the following in the order of their decreasing chemical activity: magnesium, potassium, iron and gold.

- (a) magnesium, potassium, iron, gold
- (b) magnesium, iron, potassium, gold
- (c) potassium, magnesium, iron, gold
- (d) none of these

▼ Answer

(c) potassium, magnesium, iron, gold

Potassium, magnesium, iron, gold.

Question 15.

Which of the following is true about metals:

- (a) metals generally have low melting point
- (b) metal generally have a shiny appearance
- (c) metals are poor conductors of heat and electricity
- (d) metals are non-malleable and non-ductiles

▼ Answer

(b) metal generally have a shiny appearance

Metals generally have a shiny appearance. They have high melting point, are good conductors of heat and electricity. They are malleable and ductile.

Question 16.

Which one of the following is most ductile:

- (a) Aluminium

- (b) Copper
- (c) Silver
- (d) Gold

▼ [Answer](#)

(d) Gold
Gold is most ductile.

Question 17.

Which one of the following metals is most reactive and stored in kerosene oil:

- (a) Iron
- (b) Gold
- (c) Copper
- (d) Sodium

▼ [Answer](#)

(d) Sodium
Sodium is most reactive and stored in kerosene oil. Sodium reacts with air and water at room temperature.

Question 18.

Which one of the following metals will not liberate hydrogen gas when attacked by dilute hydrochloric acid:

- (a) magnesium
- (b) zinc
- (c) copper
- (d) aluminium

▼ [Answer](#)

(c) copper
Copper will not liberate hydrogen gas when attacked by dilute hydrochloric acid because it is very low in reactivity series.

Question 19.

For rusting of iron:

- (a) only moisture is required
- (b) only air is required
- (c) both moisture and air is required
- (d) neither moisture nor air is required

▼ [Answer](#)

(c) both moisture and air is required
Both moisture and air is required for rusting of iron.

Question 20.

The property of metals by virtue of which metal can be hammered into very thin sheets is called:

- (a) ductility
- (b) malleability
- (c) lustre
- (d) sonorus

▼ [Answer](#)

(b) malleability

Malleability is the property of metals by virtue of which metals can be hammered into very thin sheets.

Question 21.

Non-metals react with oxygen and form:

- (a) natural oxides
- (b) acidic oxides
- (c) basic oxides
- (d) none of these

▼ [Answer](#)

(b) acidic oxides

Non-metals react with oxygen and forms non-metallic oxides which are acidic in nature.

Question 22.

Metals react with oxygen to form:

- (a) basic oxides
- (c) acidic oxides
- (b) neutral oxides
- (d) none of these

▼ [Answer](#)

(c) acidic oxides

Metals react with oxygen and form metallic oxides which are Basic in nature.

Question 23.

Metals can form long wires. This property of metals is known as:

- (a) sonorous
- (c) malleability
- (b) ductility
- (d) none of these

▼ [Answer](#)

(b) ductility

Ductility is the property of metal to form long wires.

Question 24.

The best electrical conductor is:

- (a) gold
- (b) silver
- (c) copper
- (d) aluminium

▼ [Answer](#)

(b) silver

Silver is the best conductor of electricity.

Question 25.

Which of the following can be beaten into thin sheets ?

- (a) oxygen
- (b) carbon
- (c) aluminium
- (d) phosphorus

▼ [Answer](#)

(c) aluminium

Aluminium can be beaten into thin sheets because it is a metal whereas oxygen, carbon and phosphorus are non-metals.

Question 26.

The metal which reacts violently with cold water is:

- (a) zinc
- (b) aluminium
- (c) sodium
- (d) copper

▼ [Answer](#)

(c) sodium

Sodium reacts violently with cold water because it is high in the reactivity series.

Question 27.

A liquid metal is:

- (a) bromine
- (c) iodine
- (b) nitrogen
- (d) mercury

▼ [Answer](#)

(d) mercury

Mercury is liquid metal. Bromine, nitrogen and iodine are non-metals.

Question 28.

The gas produced when metals react with sodium hydroxide is:

- (a) nitrogen
- (c) oxygen
- (b) hydrogen
- (d) water vapour

▼ [Answer](#)

(b) hydrogen

Hydrogen gas is produced when metals react with sodium hydroxide.

Question 29.

The gas produced when metals reacts with dilute acids is:

- (a) nitrogen
- (b) carbon dioxide
- (c) oxygen
- (d) hydrogen

▼ [Answer](#)

(d) hydrogen

Hydrogen gas is produced when metals react with dilute acids.

Question 30.

Sulphur reacts with hot concentrated nitric acid and produces:

- (a) sulphur dioxide
- (b) sulphur trioxide
- (c) nitrogen dioxide
- (d) sulphur dioxide and Nitrogen dioxide

▼ [Answer](#)

(d) sulphur dioxide and Nitrogen dioxide

Sulphur reacts with hot concentrated nitric acid and produces sulphur dioxide, nitrogen dioxide and water

[Match the Column-A with Column-B:](#)

Question 1.

Column-A	Column-B
(a) Metal which is liquid at room temperature	(i) Iodine

(b) Non-metal which is liquid at room temperature	(ii) Sodium
(c) Non-metal which is solid at room temperature	(iii) Mercury
(d) Metal which is poor conductor of heat	(iv) Bromine
(e) A soft metal	(v) Lead

▼ Answer

Column-A	Column-B
(a) Metal which is liquid at room temperature	(iii) Mercury
(b) Non-metal which is liquid at room temperature	(iv) Bromine
(c) Non-metal which is solid at room temperature	(i) Iodine
(d) Metal which is poor conductor of heat	(v) Lead
(e) A soft metal	(ii) Sodium

Question 2.

Column-A	Column-B
(a) Gallium	(i) Gas at room temperature
(b) Potassium	(ii) Best conductor of heat
(c) Silver	(iii) Solid non-metal at room temperature
(d) Iodine	(iv) Soft metal
(e) Helium	(v) Melts on our palm

▼ Answer

Column-A	Column-B
(a) Gallium	(v) Melts on our palm
(b) Potassium	(iv) Soft metal
(c) Silver	(ii) Best conductor of heat
(d) Iodine	(iii) Solid non-metal at room temperature
(e) Helium	(i) Gas at room temperature

Question 3.

Column-A	Column-B
(a) Gold	(i) Thermometers
(b) Iron	(ii) Electric wire

(c) Aluminium	(iii) Wrapping food
(d) Copper	(iv) Jewellery
(e) Mercury	(v) Machinery

▼ [Answer](#)

Column-A	Column-B
(a) Gold	(iv) Jewellery
(b) Iron	(v) Machinery
(c) Aluminium	(iii) Wrapping food
(d) Copper	(ii) Electric wire
(e) Mercury	(i) Thermometers

State whether the following statements are True or False:

Question 1.

Aluminium foils are used to wrap food items.

▼ [Answer](#)

True

Question 2.

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

▼ [Answer](#)

False

Question 3.

Copper can displace zinc from its salt solution.

▼ [Answer](#)

False

Question 4.

Sodium and potassium are stored in kerosene.

▼ [Answer](#)

True

Question 5.

The surface of most metals have shiny appearance.

▼ [Answer](#)

True

Question 6.

Lemon pickle can be stored in an aluminium utensil.

▼ [Answer](#)

False

Question 7.

Copper is used for electrical wiring.

▼ [Answer](#)

True

Question 8.

Gold is not found in the free state.

▼ [Answer](#)

False

Question 9.

Sodium does not occur in the free state.

▼ [Answer](#)

True

Question 10.

Iron is used to construct bridges and houses.

▼ [Answer](#)

True

Question 11.

Sodium reacts violently with cold water forming sodium hydroxide.

▼ [Answer](#)

True

Question 12.

Less reactive metals displace more reactive metals from their compounds in aqueous solutions.

▼ Answer

False

Question 13.

Non-metals react with oxygen to produce non-metallic oxides which are acidic in nature.

▼ Answer

False

Question 14.

'Pop' sound indicates the presence of hydrogen gas.

▼ Answer

True

Question 15.

The sulphurous acid turns red litmus blue.

▼ Answer

False

Fill in the blanks:

Question 1.

All metals except are solids at room temperature.

▼ Answer

mercury

Question 2.

Melting point of most of the metals is than non-metals.

▼ Answer

more

Question 3.

Gold is at the of the reactivity series of metals.

▼ Answer

bottom

Question 4.

Iron needs and to rust.

▼ [Answer](#)

water and air

Question 5.

The property which allows metals to be hammered into thin sheets is

▼ [Answer](#)

malleable

Question 6.

Non-metals are conductors of heat and electricity.

▼ [Answer](#)

poor

Question 7.

Metals react with oxygen to produce oxides.

▼ [Answer](#)

basic

Question 8.

Zinc is reactive than copper.

▼ [Answer](#)

more

Question 9.

Iron displaces from copper sulphate solution.

▼ [Answer](#)

copper

Question 10.

Phosphorus is a very non-metal.

▼ [Answer](#)

reactive

Question 11.

Copper sulphate + Zinc → +

▼ [Answer](#)

Zinc sulphate + Copper

Question 12.

..... is the property of metals by which it can be drawn into wires.

▼ [Answer](#)

Ductility

Question 13.

..... substances when hammered break into small pieces.

▼ [Answer](#)

Brittle

Question 14.

Acid oxides are oxides which turn litmus paper to

▼ [Answer](#)

blue, red

Question 15.

Basic oxides are oxides which turn litmus paper to

▼ [Answer](#)

red, blue

Question 16.

The shiny appearance on the cut surface of metals is called

▼ [Answer](#)

metallic lustre

Question 17.

Coal is conductor of electricity.

▼ [Answer](#)

poor

Question 18.

Metals react with acid to produce gas.

▼ [Answer](#)

hydrogen

Question 19.

..... reactive metals displace reactive metals from their compounds in aqueous solutions.

▼ [Answer](#)

More, less

Question 20.

Phosphorus is stored in

▼ [Answer](#)

water
