

Metals and Non-metals

Question 1.

Chemically rust is

- (a) Hydrated ferrous oxide
- (b) Hydrated ferric oxide
- (c) only ferric oxide
- (d) none of these
- **▼** Answer
- (b) Hydrated ferric oxide

Question 2.

Setting of Plaster of Paris takes place due to

- (a) Solder
- (b) Bronze
- (c) Brass
- (d) Bell metal
- ▼ Answer
- (a) Solder

Question 3.

Heating pyrites to remove sulphur is called

- (a) Smelting
- (b) Calcination
- (c) Liquation
- (d) Roasting
- **▼** Answer
- (d) Roasting

Question 4.

The atomic number of an element 'X' is 12. Which inert gas is nearest to X?

- (a) He
- (b) Ar
- (c) Ne
- (d) Kr
- **▼** Answer
- (c) Ne

Question 5.

During smelting, an additional substance is added which combines with impurities to form a fusible product. It is known as

- (a) Slag
- (b) Mud
- (c) Gangue
- (d) Flux
- ▼ Answer

(d)	F	lι	J.	X

Question 6.

The electronic configuration of three elements X, Y and Z are as follows:

X = 2, 4, Y = 2, 7, Z = 2,1 Which two elements will combine to form an ionic compound and write the correct formula,

- (a) X₂Y
- (b) YZ
- (c) XZ_3
- (d) $Y_{23}Z$

▼ Answer

(b) YZ

Question 7.

An element X is soft and can be cut with a knife. This is very reactive to air and cannot be kept open in air. It reacts vigorously with water. Identify the element from the following

- (a) Mg
- (b) Na
- (c) P
- (d) Ca

▼ Answer

(b) Na

Question 8.

Galvanisation is a method of protecting iron from grudging by coating with a thin layer of

- (a) Galium
- (b) Aluminium
- (c) Zinc
- (d) Silver

▼ Answer

(c) Zinc

Question 9.

The electronic configurations of three elements X, Y and Z are X - 2, 8; Y - 2, 8, 7 and Z - 2, 8, 2. Which'of the following is correct?

- (a) X is a metal
- (b) Y is a metal
- (c) Z is a non-metal
- (d) Y is a non-metal and Z is a metal

▼ Answer

(c) Z is a non-metal

Question 10.

Copper objects lose their shine and form green coating of

- (a) Copper oxide
- (b) Copper hydroxide and Copper oxide
- (c) Basic Copper carbonate
- (d) Copper carbonate

(c) Basic Copper carbonate

Question 11.

Which of the statements about the reaction,

 $ZnO + CO \rightarrow Zn + CO_2$ is correct?

- (a) ZnO is being oxidised
- (b) CO is being reduced
- (c) CO₂ is being oxidised
- (d) ZnO is being reduced

▼ Answer

(d) ZnO is being reduced

Question 12.

In extraction of copper, the flux used is

- (a) CaO
- (b) SiO₂
- (c) FeO
- (d) FeSiO₃

▼ Answer

(b) SiO₂

Question 13.

Metal always found in free state is:

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

▼ Answer

(a) Gold

Question 14.

The earthy impurities associated with mineral used in metallurgy are called

- (a) Slag
- (b) Flux
- (c) Gangue
- (d) Ore

▼ Answer

(c) Gangue

Question 15.

A mineral is known as ore if metal

- (a) Cannot be produced from it
- (b) Can be produced from it
- (c) Can be extracted from it profitably
- (d) Is very costly

(c) Can be extracted from it profitably

Question 16.

Which of the following is the correct arrange-ment of the given metals in ascending order of their reactivity?

Zinc, Iron, Magnesium, Sodium

- (a) Zinc > Iron > Magnesium > Sodium
- (b) Sodium > Magnesium > Iron > Zinc
- (c) Sodium > Zinc > Magnesium > Iron
- (d) Sodium > Magnesium > Zinc > Iron

▼ Answer

(d) Sodium > Magnesium > Zinc > Iron

Question 17.

 $Al_2O_3 + 2NaOH \rightarrow + H_2O$

- (a) $AI(OH)_3$
- (b) Na₂O
- (c) NaAlO₂
- (d) AlNaO₂

▼ Answer

(c) NaAlO₂

Ouestion 18.

Non-metals form covalent chlorides because

- (a) they can give electrons to chlorine
- (b) they can share electrons with chlorine
- (c) they can give electrons to chlorine atoms to form chloride ions
- (d) they cannot share electrons with chlorine atoms

▼ Answer

(b) they can share electrons with chlorine

Ouestion 19.

The highly reactive metals like Sodium, Potas-sium, Magnesium, etc. are extracted by the

- (a) electrolysis of their molten chloride
- (b) electrolysis of their molten oxides
- (c) reduction by aluminium
- (d) reduction by carbon

▼ Answer

(a) electrolysis of their molten chloride

Question 20.

Which of the following oxide(s) of iron would be obtained on prolonged reaction of iron with steam?

- (a) FeO
- (b) Fe_2O_3

- (c) Fe_3O_4
- (d) Fe₂O₃ and Fe₂O₄

(c) Fe_3O_4

Question 21.

An iron nail was suspended in CuSO₄ solution and kept for a while the solution is

- (a) Remained blue and coating was found on the nail.
- (b) turned green and a coating was formed on the nail
- (c) remained blue and no coating was formed on the nail
- (d) turned green and no coating was formed on the nail

▼ Answer

(b) turned green and a coating was formed on the nail

Question 22.

Which one among the following is an acidic oxide?

- (a) Na₂O
- (b) CO
- (c) CO_2
- (d) Al_2O_3

▼ Answer

(c) CO_2

Question 23.

The process in which a carbonate ore is heated strongly in the absence of air to convert it into metal oxide is called

- (a) Roasting
- (b) Reduction
- (c) Calcination
- (d) Smelting

▼ Answer

(c) Calcination

Question 24.

The sulphide ore among the following is

- (a) haematite
- (b) bauxite
- (c) argentite
- (d) zinc blende

▼ Answer

(d) zinc blende

Question 25.

Oxides of moderately reactive metals like Zinc, Iron, Nickel, Tin, Copper etc. are reduced by using

- (a) Aluminium as reducing agent
- (b) Sodium as reducing agent (b) Sodium as reducing agent, New ar (203135) PH: 8868813600, 8868823600

- (c) Carbon as reducing agent
- (d) Calcium as reducing agent

(c) Carbon as reducing agent

Question 26.

Most abundant metal on the surface of the earth

- (a) Iron
- (b) Aluminium
- (c) Calcium
- (d) Sodium
- **▼** Answer
- (b) Aluminium

Question 27.

Some crystals of CuSO₄ were dissolved in water. The color of the solution obtained would be

- (a) Green
- (b) Red
- (c) Blue
- (d) Brown
- **▼** Answer
- (c) Blue

Question 28.

In thermite welding a mixture of and is ignited with a burning magnesium ribbon which produces molten iron metal as large amount of heat is evolved.

- (a) iron (III) oxide and aluminium powder
- (b) iron (II) oxide and aluminium powder
- (c) iron (III) chloride and aluminium powder
- (d) iron (III) sulphate and aluminium powder

▼ Answer

(a) iron (III) oxide and aluminium powder

Question 29.

Zone refining is used for the

- (a) concentration of an ore
- (b) Reduction of metal oxide
- (c) Purification of metal
- (d) Purification of an ore
- ▼ Answer
- (c) Purification of metal

Question 30.

In the thermite process, the reducing agent is

- (a) Nickel
- (b) Zinc

- (c) Sodium
- (d) Aluminium

(d) Aluminium

Question 31.

A student adds one big iron nail each in four test tubes containing solution of zinc sulphate, aluminium sulphate, copper sulphate and iron sulphate. A reddish brown coating was observed only on the surface of iron nail which was added in the solution of:

- (a) Zinc sulphate
- (b) Iron sulphate
- (c) copper sulphate
- (d) Aluminium sulphate

▼ Answer

(c) copper sulphate

Question 32.

The correct decreasing order of the metals in the activity series is:

- (a) Ca, Mg, Ni, Fe
- (b) Ni, Ca, Mg, Fe
- (c) Ca, Mg, Fe, Ni
- (d) Mg, Ca, Fe, Ni

▼ Answer

(c) Ca, Mg, Fe, Ni

Question 33.

The most abundant metal in the earth's crust is

- (a) Iron
- (b) Aluminium
- (c) Calcium
- (d) Sodium

▼ Answer

(b) Aluminium

Question 34.

Which property of metals is used for making bells and strings of musical instruments like Sitar and Violin?

- (a) Sonorousness
- (b) Malleability
- (c) Ductility
- (d) Conductivity

▼ Answer

(a) Sonorousness

Question 35.

The poorest conductor of heat among metals is

(a) Lead

(b) Mercury
(c) Calcium
(d) Sodium
▼ Answer
(a) Lead
Question 36.
Metal always found in free state is:
(a) Gold
(b) Silver
(c) Copper
(d) Sodium
▼ Answer
(a) Gold
Question 37.
Malachite is an are of:
(a) Iron
(b) Copper
(c) Mercury (d) Zinc
(d) Zilic
▼ Answer
(b) Copper
Question 38. A basic lining is given to a furnace by using
(a) Calcined dolomite
(b) Copper sulphate
(c) Haematite
(d) Silica
▼ Answer
(a) Calcined dolomite
Question 39.
The slag obtained during the extraction of copper pyrites is composed mainly of
(a) Cu ₂ S
(b) FeSiO ₃
(c) CuSiO ₃
(d) SiO ₂
▼ Answer
(b) FeSiO ₃
Question 40.
Which of the following non-metal is lustrous?

Kinetics, near by indian gas agency, Khurja road, Jewar(203135) PH: 8868813600, 8868823600

(a) Sulphur(b) Oxygen

- (c) Nitrogen
- (d) Iodine
- **▼** Answer
- (d) Iodine

Question 41.

The common method for extraction of metals from the oxide ore is

- (a) Reduction with carbon
- (b) reduction with hydrogen
- (c) reduction with aluminium
- (d) electrolytic method
- **▼** Answer
- (a) Reduction with carbon

Question 42.

Example of an amphoteric oxide is:

- (a) Na₂O
- (b) K₂O
- (c) Al_2O_3
- (d) MgO
- **▼** Answer
- (c) Al_2O_3