

NEET CHEMISTRY

Topic: Metallurgy

Q.1 Chloride ore among the following is

- (1) Malachite (2) Magnesite
(3) Magnetite (4) Rock salt

Q.2 A mineral is called an ore if

- (1) A metal can be economically obtained from it
(2) A metal can be extracted from it
(3) A metal can not be obtained from it
(4) It contains a precious metal

Q.3 Corundum is

- (1) SiC (2) Al₂O₃
(3) Al₂O₃ · 2H₂O (4) KAlSi₃O₈

Q.4 The rocky and silicious matter associated with an ore is called

- (1) Slag (2) Mineral
(3) Gangue (4) Flux

Q.5 Consider –

(1) Zinc blende = Zn_2O

(2) Pyrolusite = MnO_2

(3) Cryolite = Na_3AlF_6

(4) Cinnabar = PbS

Which is/are not correctly matched -

(1) 1 only (2) 2 only

(3) 4 only (4) 1 and 4

Q.6 Bauxite has the formula –

(1) $Al_2O_3 \cdot H_2O$ (2) $Al_2O_3 \cdot 2H_2O$

(3) $Al_2O_3 \cdot 3H_2O$ (4) $KAlSi_3O_8$

Q.7 The most common ore of copper is –

(1) Cu_2S (2) $CuFeS_2$

(3) $CuCO_3 \cdot Cu(OH)_2$ (4) Cu_5FeS_4

Q.8 Froth floatation process is used for the concentration of

(1) Oxide ores (2) Sulphide ores

(3) Chloride ores (4) None of these

Q.9 Concentration of copper pyrites is done by

(1) Gravity separation (2) Froath floatation process

(3) Electromagnetic separation (4) Roasting

- Q.10** Which of the following metal is obtained by leaching process using a solution of NaCN and then precipitating the metal by addition of zinc dust
- (1) Copper (2) Silver
(3) Nickel (4) Iron
- Q.11** Identify M in the equation
- $$4M + 8CN^- + 2H_2O + O_2 \rightarrow 4[M(CN)_2]^- + 4OH^-$$
- (1) Copper (2) Iron
(3) Silver (4) Zinc
- Q.12** Mac-Aurthur forest process is used for the extraction of
- (1) Zn (2) Cu
(3) Fe (4) Ag
- Q.13** Leaching is a process of –
- (1) Reduction (2) Concentration
(3) Refining (4) Oxidation
- Q.14** Which of the following is concentrated by electromagnetic method
- (1) Haematite (2) Cinnabar
(3) Argentite (4) Galena
- Q.15** In froth floatation, the oil used is –
- (1) Olive oil (2) Pine oil
(3) Coconut oil (4) Mustard oil

Q.16 Baeyer's process is used for the purification of Bauxite containing as impurity –

- (1) Silica (2) Rutile
- (3) Fe_2O_3 (4) None

Q.17 An ore of tin containing FeCrO_4 is concentrated by –

- (1) Magnetic separation
- (2) Froth floatation
- (3) Electrostatic
- (4) Gravity separation

Q.18 Heating of pyrites in air for oxidation of sulphur is called –

- (1) Roasting (2) Calcination
- (3) Smelting (4) Slagging

Q.19 Purpose of smelting of an ore is –

- (1) To oxidise it
- (2) To reduce it
- (3) To remove vaporisable impurities
- (4) To obtain an alloy

Q.20 The substance used in the thermite process for reducing metal oxide is –

- (1) Aluminium (2) Thorium
- (3) Heated Pt gauge (4) Carbon

Q.21 The aim of addition of flux along with the ore during smelting is –

- (1) To reduce the melting point of metal
- (2) For increasing boiling point of metal
- (3) To make ore porous
- (4) To remove the impurities

Q.22 Which one of the following metals is extracted by carbon reduction process –

- (1) Sodium (2) Iron
(3) Aluminium (4) Magnesium

Q.23 The commonest method for the extraction of metals from oxide ores involves –

- (1) Reduction with carbon (2) Reduction with aluminium
(3) Reduction with hydrogen (4) Electrolytic method

Q.24 Heating of carbonates to remove carbon is called as –

- (1) Roasting (2) Calcination
(3) Smelting (4) Fluxing

Q.25 Which one of the following is not a basic flux –

- (1) CaCO_3 (2) CaO
(3) SiO_2 (4) MgO

Q.26 False statement is –

- (1) Mond's process is used for refining of nickel
(2) Gold is extracted by cyanide process
(3) Calcination of an ore requires excess of air
(4) None

Q.27 Which one of the following reactions is an example for calcination process

- (1) $2\text{Ag} + 2\text{HCl} + (\text{O}) \rightarrow 2\text{AgCl} + \text{H}_2\text{O}$ (2) $2\text{Zn} + \text{O}_2 \rightarrow 2\text{ZnO}$
(3) $2\text{ZnS} + 3\text{O}_2 \rightarrow 2\text{ZnO} + 2\text{SO}_2$ (4) $\text{MgCO}_3 \rightarrow \text{MgO} + \text{CO}_2$

Q.28 Which of the following statement is correct regarding the slag obtained during the extraction of a metal like copper or iron –

- (1) The slag is lighter and has higher melting point than the metal
- (2) The slag is lighter and has lower melting point than the metal
- (3) The slag is heavier and has higher melting point than the metal
- (4) The slag is heavier and has lower melting point than the metal

Q.29 Which of the following is used for the extraction of cadmium from cadmium sulphide–

- (1) Roasting (2) Reduction
- (3) Oxidation (4) Electrolysis

Q.30 Roasting is carried out in –

- (1) A blast furnace
- (2) A reverberatory furnace
- (3) A muffle furnace
- (4) An electric furnace

ANSWER KEY

Que.	1	2	3	4	5	6	7	8	9	10
Ans.	4	1	2	3	4	2	2	2	2	2
Que.	11	12	13	14	15	16	17	18	19	20
Ans.	3	4	2	1	2	3	1	1	2	1
Que.	21	22	23	24	25	26	27	28	29	30
Ans.	4	2	1	2	3	3	4	2	1	2