



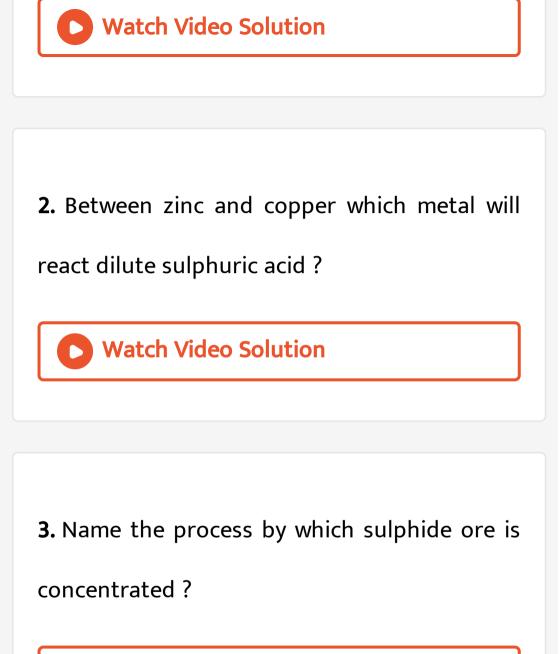
CHEMISTRY

BOOKS - MBD CHEMISTRY (ODIA ENGLISH)

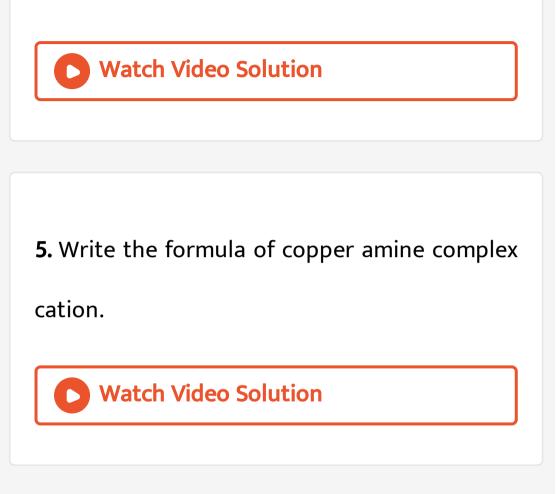
GENERAL PRINCIPLES OF ISOLATION OF ELEMENTS

Question Bank

1. Name two ores of copper.



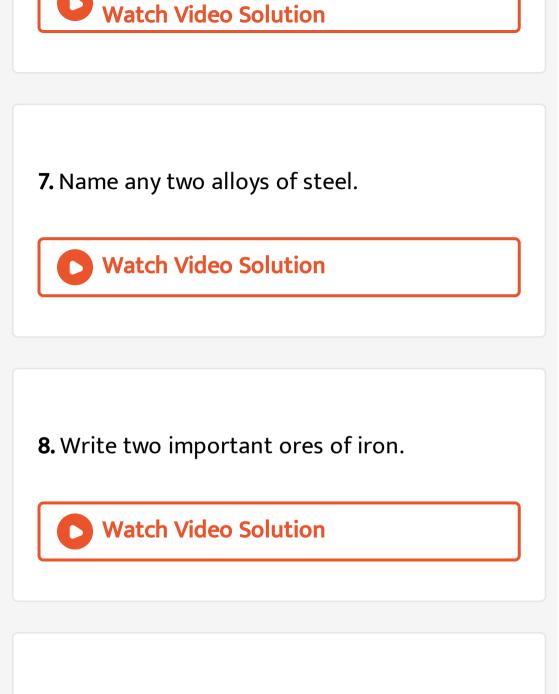
4. Brass contains which metals?



6. Write down the composition of German

silver.





9. Name two alloys of copper.





10. Which one is more paramagnetic: Fe^{3+} or

 Fe^{3+} ?

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11. What is formula of green vitriol?

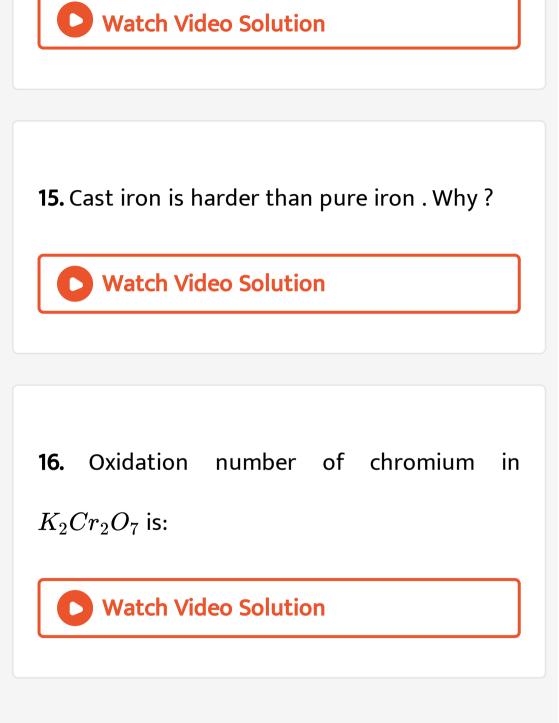
12. What is formula of Mohr's salt.

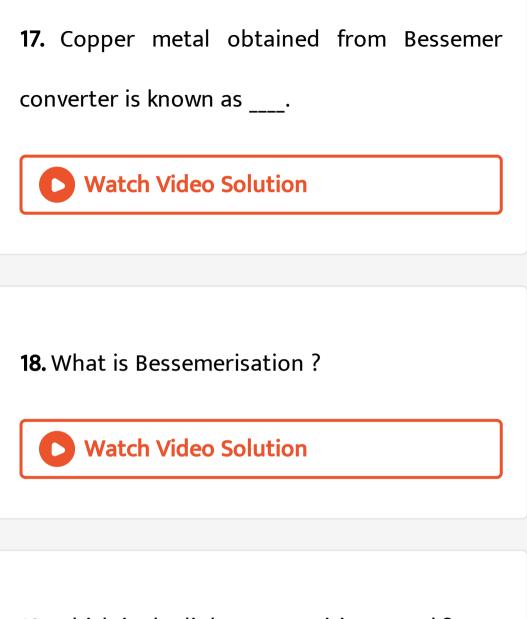


13. What is % of carbon in cast iron and in steel ?

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14. What happens when potassium iodide is added to $CuSO_4$ solution ?





19. Which is the lightest transition metal ?

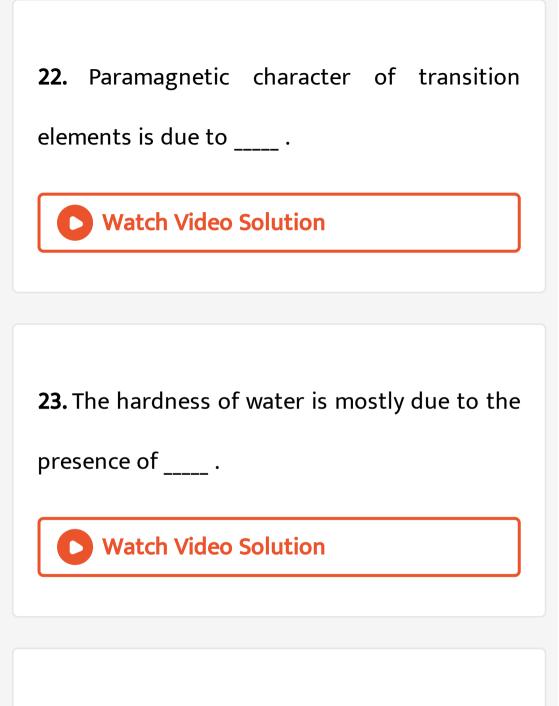
20. The highest oxidation state of transition

metal is what ?

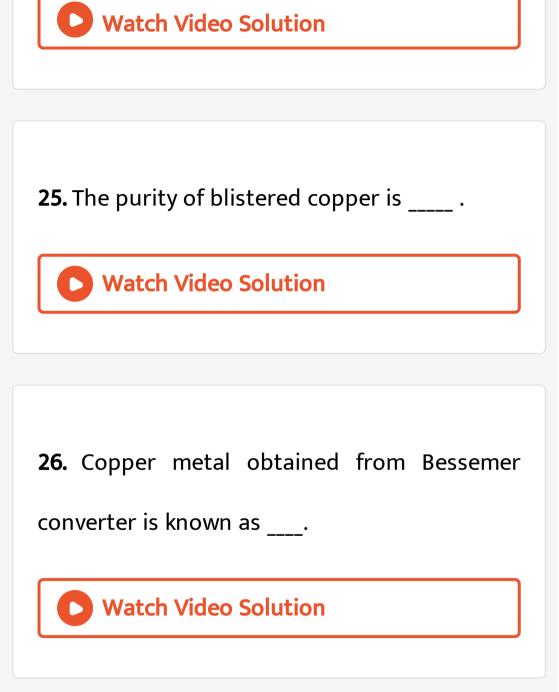


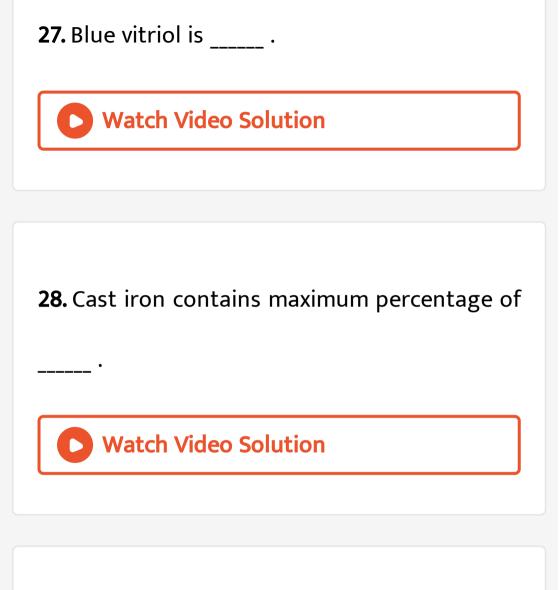
21. Explain why $CuSO_4$ is blue while $ZnSO_4$ is

white.

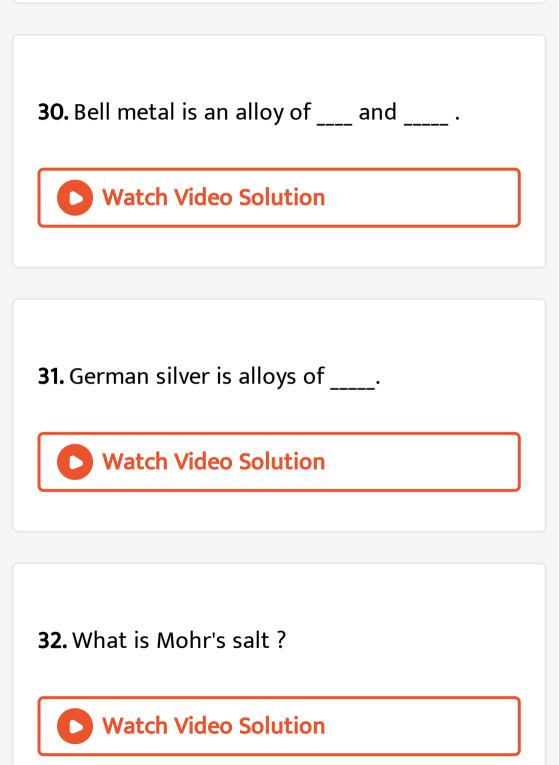


24. The composition of 'Copper Matte' is :





29. Azurite is the ore of _____.



33. Galvanised iron sheets have coating of :

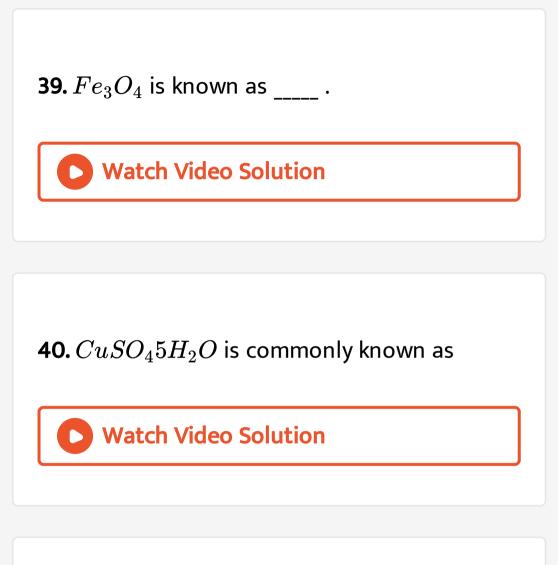


34. $FeSO_4$. $7H_2O$ is known as

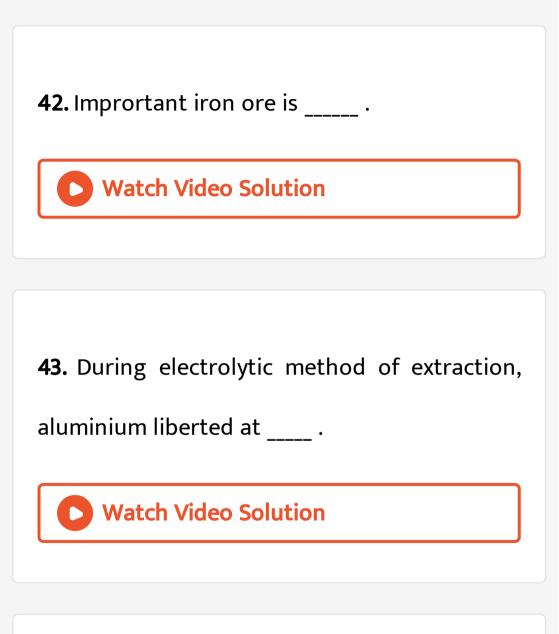
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35. Percentage of carbon in steel is _____.

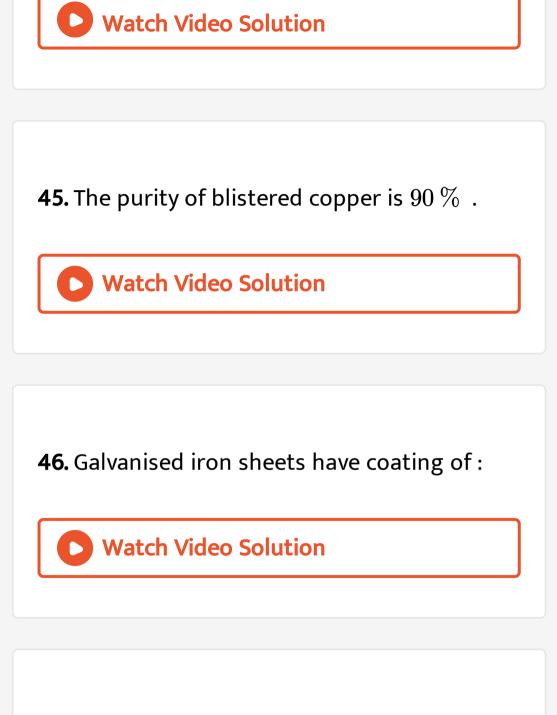
36. Brass contains
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37. Imprortant iron ore is
Watch Video Solution
38. Purest from of iron is .
Watch Video Solution



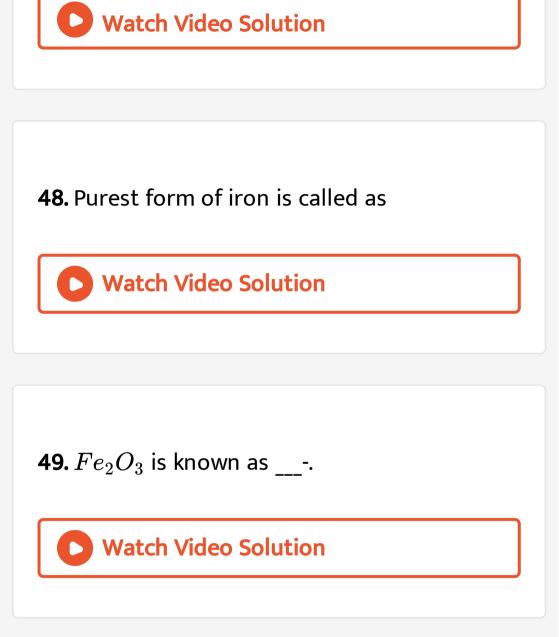
41. Constantan is an alloy of _____ .

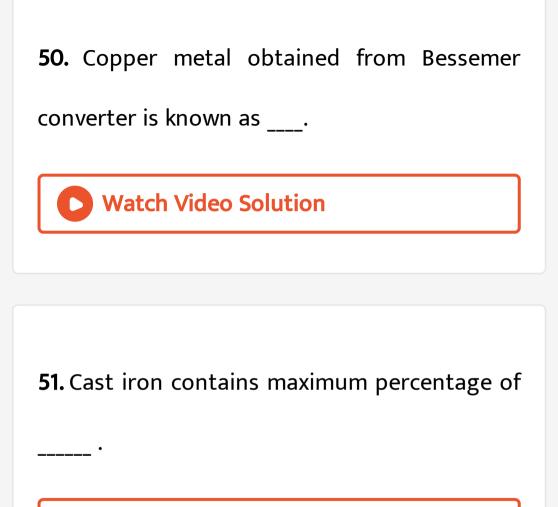


44. The composition of 'Copper Matte' is :

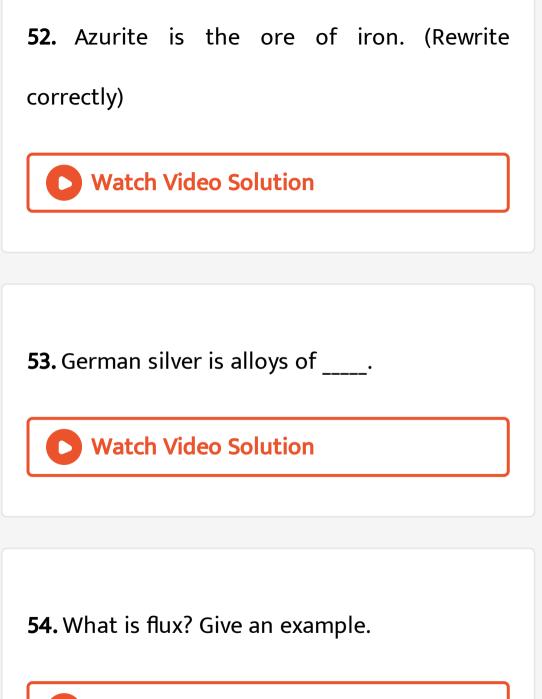


47. Important iron ore is iron pyrite









55. What is calcination?

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56. What is distillation ?

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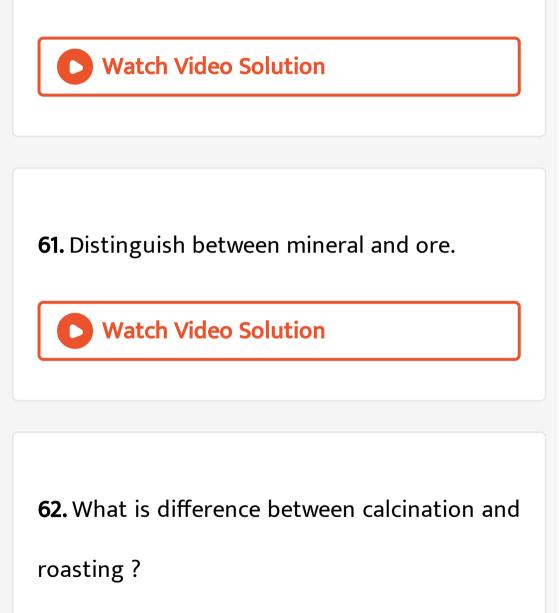
57. Distinguish between flux and slag?

58. What is the function of limestone the extraction of iron? Give equation to explain its action.

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59. What is roasting?

60. How slag is formed in metal extraction ?



63. What is self-reduction in metallurgy? Give example.



64. What is leaching ? Glve an example.



65. Discuss general methods of extraction of

metals giving suitable example.

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66. Give the meaning of the following terms

with examples: calcination

67. Give the meaning of the following terms

with examples: Roasting

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68. Give the meaning of the following terms

with examples: Smelting

69. Write notes on

aluminothermic process

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70. Example the following terms : Refining of metals



71. Discuss the principle of extraction of aluminium from one of its chief ore.
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72. Give the principle of extraction of copper

from one of its ore.



73. Discuss the occurreance and principle of

extraction of zinc.

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74. Name two important ores of iron. Describe the principle of extraction of iron from an important ore. How does iron react with dilute and concentrate nitriacid separately ?

75. Which is not an ore of magnesium?

A. Carnallite

B. Dolomite

C. Gypsum

D. Magnesite

Answer: C



76. Which process is used for benefication of ores :

- A. Process of removal of impurities
- B. Process of heating ore at high

temperature

C. Extraction of metal From ore

D. None

Answer: A



77. Radium is obtained from:

A. Pitchblende

B. Haematite

C. Monazite

D. None of these

Answer: A

78. In the metallurgy of iron , when limstone is added to the blast furnace , the calcium ions are removed as :

A. Slag

B. Gangue

C. Metallic Ca

D. $CaCO_3$

Answer: A

79. From gold amalgam , gold may be recovered by :

A. Addition of Zn metal

B. Electrolytic refining

C. Distillation

D. Dissolving Hg in HNO_3

Answer: C

80. Froth floatation method may be used to

increase the concentration of mineral in

A. Chalcopyrite

B. Bauxite

C. Haemotite

D. Calamine

Answer: A

81. Copper pyrites ore is concentrated by

A. Electromagnetic method

B. Gravity method

C. Froth floatation process

D. All

Answer: C

82. Leaching is a process of:

A. Reduction

B. Concentration

C. Reformation

D. Oxidation

Answer: B

83. Malachite is an ore of :

A. Fe

B. Zn

C. Cu

D. Hg

Answer: C



84. Which of the following is not a basic flux ?

A. $CaCO_3$

B. CaO

 $\mathsf{C}.\,SiO_2$

D. MgO

Answer: C



85. The most abundant element in the earth crust is : A.O B. Si C. H D. C Answer: A Watch Video Solution

86. A mineral is known as ore if metal

- A. The metal present in the mineral is costly
- B. A metal can be extracted from it
- C. A metal can be profitably extyracted from it
- D. A mineral cannot be extracted from it

Answer: C

87. The most abundant metal in the earth crust is :A. Na

B. Ca

C. Al

D. Fe

Answer: C

88. Gold is extracted using :

A. Amalgamation process

B. Carbon reduction process

C. Oxidation process

D. Electrolytic process

Answer: A

89. Extraction of silver from its ore involving NaCN , air and an active metal is known as :

A. Pattinson.s method

B. Amalgamation method

C. Mc Arthur - Forrest method

D. Parke.s method

Answer: C

90. In the thermite process, the reducing agent is :

A. C

B. Al

C. Na

D. Mg

Answer: B

91. Blanc fixe is :

A. $BaSO_4$

 $\mathsf{B.}\,BaCl_2$

 $C. BaCO_3$

D. None

Answer: A



92. Carbon reduction is used for the extraction

of:

A. Fe

B. K

C. Al

D. None

Answer: A

93. Froth floatation process is based on :

A. Wetting properties of ore particles

B. Specific gravity of ore particles

C. Magnetic properties of ore particles

D. Electical properties of ore particles

Answer: A



94. Which contains both Ca and Mg?

A. Limestone

- B. Dolomite
- C. Chalk
- D. Feldspar

Answer: B



95. Heating of ores with flux to remove non

fusible mass is called:

- A. Smelting
- **B.** Calcination
- C. Roasting
- D. Cupellation

Answer: A



96. In the electrolysis of alumina, cryolite is added to :

A. Lower the melting point of alumina and

to increase the conductivity

B. Minimise the anode effect

C. Remove impurities from Alumina

D. None of the above

Answer: A

97. The process of converting hydrated alumina into anhydrous alumina is called :

A. Roasting

B. Smelting

C. Dressing

D. Calcination

Answer: D

98. Which of the following statement regarding the metallurgy of magnesium using electolytic method is not correct ?

containing a littlr of NaCl and NaF

- B. Air tight iron pot acts as a cathode
- C. Electrolysis is done in the atmosphere of

coal gas .

D. Molten magnesium is having than the

electrolyte.

Answer: D

:



99. In the metallurgy of zinc , the zinc dust obtained from roasting and reduction of zinc sulphide contained some ZnO. It is removed by

A. Absorbance of ultraviolet light and remission of white light

B. Shock cooling by contact with a shower

of molten lead

C. X-ray method

D. Smelting

Answer: B

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100. Some of the metals occur in the native

state in nature because they :

A. Are reactive

B. Do not form ionic compounds

C. Are not reactive

D. None

Answer: C

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101. Complex formation or cyanide method is

used for the extraction of :

A. Cu

B. Fe

C. Hg

D. Ag

Answer: D

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102. An essential constituent of amalgam is :

B. Ag

C. Al

D. Hg

Answer: B

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103. Mercury is transported in metal containers made up of :

B. Pb

C. Zn

D. Sn

Answer: A

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104. Impurities physically associated with minerals are:

B. Flux

C. Alloy

D. Matrix

Answer: D

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105. In concentration process of minerals by froth foloatation method , the ore particles float because :

A. They are light

B. They are insoluble

C. Their surface is hydrophobic

D. None

Answer: C

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106. The ore that is concentrated by froth

floatation process is

- A. Bauxite ore
- B. Haematite ore
- C. Cryolite ore
- D. Sulphide ore

Answer: D



107. Which consists of only one element ?

A. Marble

B. Sand

C. Diamond

D. Glass

Answer: C

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108. Metallurgy is the process of :

A. gangue

B. Roasting the ore

C. Extracting the metal from the ore

D. Adding carbon to the ore in blast

furnace

Answer: C

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109. The second most common element in the

universe is :

A. Silicon

B. Hydrogen

C. Nitrogen

D. Oxygen

Answer: A

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110. The main function of roasting is :

A. To remove the volatile matter

B. Oxidation

C. Reduction

D. To make slag

Answer: B



111. A and B are two allotropes of an element .

One gram of B in :

A. Oxidation number

B. Chemical composition

C. total number of atoms

D. Atomic arrangment

Answer: D



112. An element A dissolves both in acid and

alkali. It is an example of :

A. Allotropic nature of A

B. Dimorphic nature of A

C. Amorphous nature of A

D. Amophoteric nature of A

Answer: D

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113. In metallurgy , flux is a substance used to convert :

A. Infusible impurities to fusible mass

B. Mineral into silicate

C. Fusible impurities to infusible material

D. Soluble particles to insoluble impurities

Answer: A



114. The metallurgical process in which a metal

is obtained in a fused state is called :

A. Smelting

B. Roasting

C. Calcination

D. Froth floatation

Answer: A



115. Which pair of element cannot form an alloy :

A. Zn , Hg

B. Fe, Hg

C.Fe,C

D. Hg , Na

Answer: B

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116. Which metal is extracted by a reduction

process :

A. Na

B. Al

C. Fe

D. Mg

Answer: C



117. Alloys of which metal are light and strong

and used in the manufacture of aeroplanes :

A. Cr

B. Sn

C. Fe

D. Mg

Answer: D

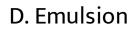


118. Alloy is an example of :

A. Gel

B. Aerosal

C. Solid sol



Answer: C

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119. Gold when dissolved in aqua-regia gives :

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120. Ferric oxide in blast furnance is reduced

by:

A. C

$\mathsf{B}.\,H_2$

C. CO

D. CO_2

Answer: C

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121. Electric furnaces are lined with magnesia

because :

- A. It is not affected by acids
- B. It liberates oxygen on heating
- C. It melts at very high temperature
- D. it has no effect of electricity

Answer: C

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122. High purity copper metal is obtained by :

A. Carbon reduction

B. Hydrogen reduction

C. Electrolytic reduction

D. Thermite process

Answer: C

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123. Which element is purified by zone refining

?

B. Si

C. Si & Ge

D. None

Answer: B

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124. Gold is found usually near Minerals.

A. Mica

B. Felspar

C. Quartz

D. Galena

Answer: C



125. CO is used in the metallurgy of :

A. Cu

B. Ni

C. Cr

D. Pt

Answer: B

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126. Chalcogens are :

A. Hydrocarbons

B. Ore formating elements

C. Oxide forming elements

D. Those having ability to catenate

Answer: B



127. wulfenite (a yellow - red mineral) having waxy lusture occurs in lead ores , is an important source of :

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128. Slag coming out at the bottom of a blast

furance during extraction of iron from its ores

, is used in making :

A. Roads

B. Fertilizers

C. Plastics

D. Glass moulds

Answer: A

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129. Which element occurs in free state :

A. Fe

B. Co

C. Pt

D. Ni

Answer: C

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130. Which of the following is a metal ?

B. As

C. Bi

D. Sb

Answer: C

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131. Leaching process is used to get :-

A. Ag

B. Au

C. Both

D. None

Answer: C



132. Roasting is used in the extraction of :

A. Galena

B. Iron pyrite

C. Copper glance

D. All

Answer: D

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133. Pollucite is an ore of :

A. Li

B. Rb

C. K

D. Cs





134. Which among the following has highest electrical conductivty?

A. Zn

B. Fe

C. Ag

D. Cu





135. Al_2O_3 formation involves large quantity of heat evolution which makes its use in :

A. Deoxidation

B. Confectionary

C. Indoor photography

D. Thermite welding





136. Which is not an ore?

A. Bauxite

- B. Malachite
- C. Zinc blende
- D. Pig iron

Answer: D



137. Which is not an ore :

A. Cinnabar

B. Malachite

C. Zinc blende

D. Wrought iron

Answer: D

138. Heating of pyrite ores in air to remove sulphur is known as :

A. Calcination

B. Fluxing

C. Smelting

D. Roasting

Answer: D

139. Among the following group of oxides, the group containing oxides that cannot be reduced by carbon to give the respective metals , is :

A. Cu_2O, SnO_2

B. Fe_2O_3, ZnO

C. CaO , K_2O

D. PbO, Fe_3O_4

Answer: C

140. The electrolytic reduction technique is used in the extraction of :

A. Highly electronegative elements

B. Highly electropositive elements

C. Metalloids

D. Transition metals

Answer: B

141. Furances are lined with calcium oxide because :

A. It gives off oxygen on heating

B. It gives light on heating

C. It is refractory and basic

D. It is not affected by acids

Answer: C

142. The process in which ore is heated in air below its melting point is known as :

A. Roasting

B. Calcination

C. Reduction

D. Distillation

Answer: A

143. The metal that is extracted from sea water

is :

A. Na

B. Ca

C. Mg

D. Sn

Answer: C

144. Extraction of metal from sulphide ore is

made by :

A. Electrolysis

B. Roasting

C. Hydrometallurgy

D. None

Answer: B

145. Which of the following processes involves

the roasting process ?

A.
$$ZncO_3
ightarrow ZnO + CO_2$$

B. $Fe_2O_3 + 3C \rightarrow 2Fe_3CO$

 $\text{C.}~2PbS+3O_2\rightarrow 2PbO+2SO_2$

D. $Al_2O_3\cdot 2H_2O o Al_2O_3+2H_2O$

Answer: C

146. Corundum is :

- A. SrO_2
- $\mathsf{B.}\,Al_2O_3$
- $C. CaCl_2$
- D. Cu_2Cl_2

Answer: B



147. Which metal is sometimes found in native

state ?

A. Al

B. Cu

C. Fe

D. Mg

Answer: C

148. Which elements found in human body :

A. Pb

B. Fe

C. Cd

D. Al

Answer: B

149. presence of small impurity usually makes a metal quite hard because the impurities

A. Change the lattice structure of metals

B. Reduce the number of slide planes

C. Reduce the number of mobile electrons

D. Reduse the crystal symmetry

Answer: B

150. The phenomenon in which white transparent crystal changes into white powder is known as :

A. Sublimation

B. Allotropy

C. Efflorescence

D. Deliquescence

Answer: C

151. Which substance can be used for drying basic gases :

A. $CaCO_3$

 $\mathsf{B.}\,Na_2CO_3$

 $C. CaHCO_3$

D. CaO

Answer: D

152. The cheap and high melting point compound used in furnace lining is :

A. PbO

B. CaO

C. HgO

D. ZnO

Answer: B

153. Which element occurs freely in nature?

A. lodine

B. Sulphur

C. Phosphorus

D. Magnesium

Answer: B

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154. The lightest metal is :

A. Li

B. Mg

C. Ca

D. Na

Answer: A



155. Which of the elements listed below shows

allotropic forms?

A. lodine

- B. Copper
- C. Sulphur
- D. Silver

Answer: C

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156. The most malleable metal is :

A. Silver

B. Sodium

C. Gold

D. Platinum

Answer: C

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157. Concentration of the ore is done :

A. To make the ore porus

B. To make the ore fit for electrolysis

C. To drive off the volatile impurities

D. To free it from as many as impurities as

possible.

Answer: D

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158. The purpose of smelting of an ore is :

A. To oxidise it

B. To reduce it

C. To separate volatile impurities

D. To obtain an alloy

Answer: C

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159. Calcination of an ore means :

A. Strong heating in presence of air

B. Strong heating in the absence of air

C. Strong heating only to melt the ore

D. Strong heating in the reducing

oxidising sphere

Answer: C



160. The metal used in storage batteries is :

A. Cu

B. Sn

C. Pb

D. Ni

Answer: C

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161. In blast furnace , the cup and cone arrangement is used :

A. To escape the gases during charging

B. Not to allow the escape of the gases

C. To heat the charge with the gases

D. None of these

Answer: C

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162. The process of heating the ore strongly in excess of air so that the volatile impurities are removed and the ore is changed to oxide is known as :

A. Calcination

B. Roasting

C. Froth floatation

D. Leaching

Answer: B

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163. Liquid crystals are best used in :

A. Colour TV

B. Crystallization

C. Extraction

D. e/m determination

Answer: A



164. The existence of two or more crystalline

forms of the same substance is called :

A. Polymorphism

B. Isomerism

C. Homologues

D. Isomorphism

Answer: A



165. In the reverberatory furnace :

A. The flames donot come in contact with

the charge

B. The flames come in contact with the

charge

C. Only hot gases come in contact with the

charge

D. The flames are not there at all

Answer: C

166. Two compounds having the same crystal

structures and analogous formulae are called :

A. Isomorphous

B. Isotopes

C. Isomers

D. Isobars

Answer: A

167. Which metal is extracted by electrolytic reduction ?

A. Iron

B. Copper

C. Silver

D. Aluminium

Answer: D

168. Refractory materials are used for the construction of furnaces because they :

A. are light in weight

B. can stand with high temperature

C. are leak proof

D. do not require to be replaced

Answer: B

169. Roasting is generally done in case of :

A. Oxide ores

- B. Silicate ores
- C. Sulphide ores
- D. Carbonate ores

Answer: C



170. Cupellation process is used in he metallurgy of :

A. Copper

B. Silver

C. Lead

D. Iron

Answer: B

171. Crystalline metal can be transformed into

metallic glass by :

A. Alloying

B. Pressing into thin plates

C. Slow cooling of molten metal

D. Very rapid cooling of a spray of the

molten metal

Answer: D

172. An alloy is :

- A. Intermetallic compound
- B.A solid substance containing two or

more elements

- C. A solid which contains one non-metal
- D. A solid which contains more than one

non -metal

Answer: B

173. The electrolytic method of reduction is employed for the preparation of metals that :

A. are weakely electropositive

B. are moderately electropositive

C. are strongly electropositive

D. from oxides

Answer: C

174. Electrometallurgical process (electrolysis

of fused salt) is employed to extract :

A. Iron

B. Lead

C. Sodium

D. Silver

Answer: C

175. The metalloid amongst the following is:

A. Arsenic

B. Sodium

C. Gold

D. Iron

Answer: A

176. When limestone is heated, carbon dioxide is given off. This operation in metallurgy is known as:

A. Smelting

B. re-dressing

C. calcination

D. Roasting

Answer: C

177. The salt which least likely to be found in

minerals is

A. Chloride

B. Sulphate

C. Sulphide

D. Nitrate

Answer: D

178. The role of calcination in metallurgical operations is:

A. To remove moisture

B. To decompose carbonate

C. to drive off organic matter

D. to achieve all these

Answer: D

179. Which metal cannot be extracted by

carbon reduction process?

A. Pb

B. Al

C. Hg

D. Zn

Answer: B

180. Hydrometallurgy is useful in the

extraction of:

A. Sn

B. Al

C. Hg

D. Ag

Answer: D

181. In electro-refining of metal the impure metal is made the anode and a strip of pure metal the cathode during the electrolysis of an aqueous solution of a complex metal salt. This method cannot be used for refining of:

A. silver

B. Copper

C. Aluminium

D. Sodium

Answer: B



182. In the froth floatation process of concentration of ores, the ore particles float because they:

A. are light

B. are insoluble

C. have the surface which is not wetted

easily by water

D. have a constant electrical charge





183. The metal that cannot be obtained by electrolysis of the aqueous solution of their salts is:

A. Ag

B. Mg

C. Cu

D. Cr





184. The inner lining of a blast furnace is made up of

- A. Graphite bricks
- B. Silica bricks
- C. Fire clay bricks
- D. Basic bricks

Answer: C



185. Diaspore is:

A. Al_2O_3 . H_2O

 $\mathsf{B.}\,Al_2O_{3.2}H_2O$

 $\mathsf{C.}\,Al_2O_3$

D. $Al_2O_{3.3}H_2O$

Answer: A



186. The matel obtained by self reduction process is:

A. Cu

B. Hg

C. Pb

D. All

Answer: D





187. Silver is exfracted by:

A. cupellation method

B. Parke.s process

C. Pattinson.s process

D. All

Answer: D

188. Pig iron is converted into steel by decreasing the amount of carbon contained in it, in a:

- A. Blast furnace
- B. Pyrite burner
- C. Bessemer converter
- D. none of the above

Answer: C

189. Carbon reduction method is used in the extraction of:

A. Sn

B. Fe

C. Pb

D. All

Answer: D

190. The pyrolusite ore contains:

A. Fe

B. Al

C. Mn

D. Cu

Answer: C



191. Chile saltpetre is the ore of:

A. Mg

B. K

C. Na

D. Ca

Answer: C

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192. Liquation is used to purify:

B. Sn

C. Bi

D. All

Answer: D

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193. Which is not a mineral?

A. Mica

B. Peat

C. Quartz

D. Felspar

Answer: B

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194. The chemical composition of Carnallite is:

A. KCl. $MgCl_{2.6}H_2O$

 $\mathsf{B.}\, MgSO_{4.7}H_2O$

 $\mathsf{C.}\,MgCO_{3.7}H_2O$

D. $MgCO_3$

Answer: A

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195. An important characteristic property of metals is:

A. Their hardness

B. Their ability to conduct electricity

C. To form oxides

D. The stability of their compounds

Answer: B

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196. The ore concentrated by electromagnetic saparation is

A. Wolframine

B. Haemetite

C. Casseterite

D. All

Answer: D

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197. Kiesserite is an ore of:

A. Cu

B. Al

C. Mg

D. Felspar

Answer: C



198. Thomas slag is:

- A. Calcium silicate
- B. Calcium phosphate
- C. tetracalcium phosphate
- D. calcium ammonium phosphate

Answer: C



199. Which is not found in native state:

A. Pt

B. Au

C. Cu

D. Na

Answer: D

200. Pentalandite is an ore of:

A. Fe

B. Ni ansd Fe

C. Cu

D. Nitrate

Answer: D

201. The ore magnesite is:

A. $MgCO_3$. $CaCO_3$

 $\mathsf{B.} MgCl_2. KCl.6H_2O$

 $\mathsf{C.}\,MgSO_{4.7}H_2O$

D. $MgCO_3$

Answer: B

202. Beryl is an important ore of:

A. Boron

B. Beryllium

C. Lead

D. Lithium

Answer: D



203. Rutile is an ore of:

A. Ti

B.Zr

C. Mn

D. V

Answer: A



204. Indian salpetre is:

A. KNO_2

 $\mathsf{B.}\,KNO_3$

C. NaCl

D. Na_2CO_3

Answer: B

205. Extraction of Ag from commercial lead is

possible by:

A. Parke's process

B. Clarke.s process

C. Pattinson.s process

D. electrolytic process

Answer: A

206. Malachite ore is:

A. Cu_2S

 $\mathsf{B.}\,Cu_2O$

 $C. CuCO_3$

D. $CuCO_3$. $Cu(OH)_2$

Answer: D

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207. Orford process is used in extraction of:

A. Pt

B. Copper

C. Fe

D. Ni

Answer: B



208. Blister copper is obtained by:

A. Bessemerisation

B. Roasting

C. poling

D. Refining

Answer: A

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209. The grey cast iron contains:

A. Iron carbide

B. Silicon carbide

C. silicon dioxide

D. Graphite

Answer: D



210. Pig iron is manufactured by:

A. An electric furnace

B. A blast furnace

C. An open heart furnace

D. None of these

Answer: B

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211. Which is acidic flux ?

A. CaO

 $\mathsf{B.}\,SiO_2$

 $\mathsf{C.}\,Al_2O_3$

D. Fe_2O_3





212. In India thorium deposits are found mainly in the forms of:

A. Liqnite

B. Rutile

C. Monazite

D. None





213. Bessemer convergter is used in the manufacture of

A. Pig iron

B. Steel

C. Wrought iron

D. Cast iron





214. Which of the following metal is thrown as anode mud during electrolytic refining of copper?

A. Zn

B. Fe

C. Ag

D. Ni





215. Plumbo-solvency refers to:

- A. Oxidation of lead to lead oxide
- B. Oxidation of lead to red lead
- C. Dissolution of lead in water containing

are

D. Making lead wires by forcing heated

metal though a die

Answer: C

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216. Which metal occurs in free state:

A. Ag

B. Au

C. Pt

D. All

Answer: D

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217. The main constituent of steel in india are:

A. Ni and Mg

B. V andCo

C. Al and Zn

D. Mn and Cr





218. The incorrect statement is:

- A. Calamine and Siderrite are carbonates
- B. Argentite and Cuprites oxides
- C. An blende and iron pyrties are sulphides
- D. Malachite and azurite are ores of Cu

Answer: B



219. Alkaline earth metals are not found free in

nature because of their:

A. Their high b. pt.

B. Their llow b. pt.

C. Thermal instability

D. Their great chemical activity

Answer: D





220. Iron is obtained on large scale from Fe_2O_3 by:

A. Reduction with CO

B. Reducing with Al

C. calcination

D. Passing H_2

Answer: A

221. Maganetic separtion is used for increasing concentration of the:

A. Horn silver

B. Calcite

C. Haemarite

D. Magnetite

Answer: C

222. Which is not an iron ore?

A. Haematite

B. Limonite

C. Casseterite

D. Magnetite

Answer: C

223. Platinum, Palladium, Indium, etc. are called

noble metals because:

A. Alfred nobel discovered them

B. They are inert towards many common

reagents

C. The are shining, lustrous and pleasing to

look at

D. They are found in native state







224. Purest form of iron is called as

A. Cast iron

B. Hard steel

C. Stainless steel

D. Wrought iron

Answer: D

225. Sapphire is a mineral of :

A. Zn

B. Cu

C. Hg

D. Al

Answer: D



226. The main ore of zinc is:

- A. Zinc blende
- B. Zincite
- C. Calamine
- D. All

Answer: D



227. Calcium occurs in nature as:

A. Limestone

B. Marble

C. Dolomite

D. All

Answer: D

228. The metal which cannot be extracted by

smelting process?

A. Pb

B. Fe

C. Zn

D. Al

Answer: C

229. Which does not contain aluminium:

A. Bauxite

B. Emery

C. Rutile

D. Corundum

Answer: C

230. Which is incorrect as the uses of limestone in industries are concerned?

A. For making cement

B. In the extraction of Snfrom its ore

C. In the extraction of Fe from its ore

D. In the manufacture of gass

Answer: B

231. Which is not a silver ore ?

A. Argentite

B. Siderite

C. Horn silver

D. Ruby silver

Answer: B



232. Iron is made inactive or passive by:

A. H_3PO_4

B. Conc. HNO_3

C. Conc. H_2SO_4

D. Dil. HNO_3

Answer: B

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233. The mineral of copper is:

A. Azurite

B. Malachite

C. Copper pyrites

D. All

Answer: D

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234. Granulated zinc is obtained by:

A. Suddenly colling molten zinc

B. Adding molten zinc to water

C. Heating zinc to $100-150^{\,\circ}C$

D. Dropping molten zinc drop by drop

Answer: B

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235. After partial roasting, the sulphide of copper is reduced by:

A. Cyanide process

B. Electrolysis

C. Reduction with carbon

D. Self reduction

Answer: D



236. Which process is not used in purification

of bauxite ?

A. Hall's method

B. Baeyer's method

C. Serpek's method

D. Frankland's method

Answer: D

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237. Electrolysis of fused carnallite gives:

A. Mg

B. K

C. K and CO_2

D. K, Mg and Cl_2

Answer: D

Watch Video Solution

238. Which is not an ore of leads ?

A. Galena

B. Cassiterite

C. Anglesite

D. Cerussite

Answer: B



239. Coating of zinc on iron objects is commonly known as:

A. Electroplating

- B. Surface coating
- C. Galvanising
- D. Sheardising





240. In serpek's process, by product obtained in the purification of bauxite is:

A. Al_2O_3

B. N_2

 $\mathsf{C}.NH_3$

D. None





241. The sand stone in some iron ores is removed by:

A. Carbon filters

B. Compressed air

C. Limestone

D. Sulphuric acid





242. Which is metalloid ?

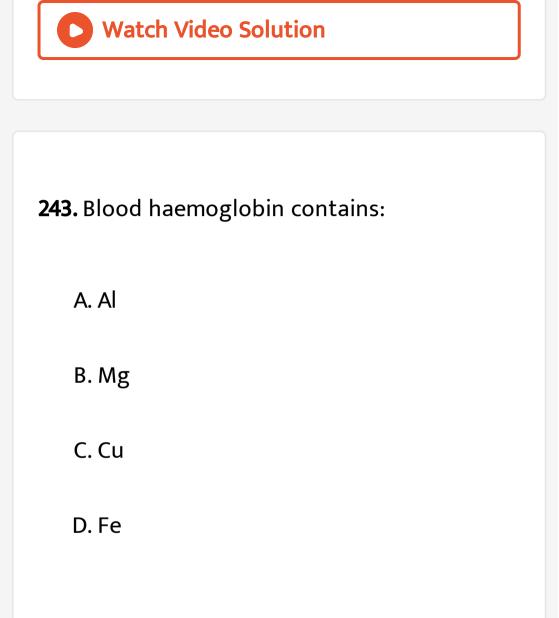
A. Na

B. Au

C. As

D. Fe

Answer: C



Answer: C



244. Which set of elements is called chalcogens ?

A. Cl, Br, I

B. O, S, Se

C. N, P, As

D. C, Si, Ge

Answer: B

245. Which metal is chiefly used in galvanising

Fe?

A. Cr

B. Zn

C. Cd

D. Sn

Answer: D

246. The iron obtained from the blast furnace

is called as

A. Steel

B. Cast iron

C. Wrought iron

D. Pig iron

Answer: C

247. Which is not an ore of nickel ?

- A. Nickel glance
- B. Garnerite
- C. Haematite
- D. Pentlandite

Answer: C



248. Amalgams are:

A. Highly coloured alloys

B. Always in liquid state

C. Alloys which contain Hg as one of the

constituents

D. Alloys which have a great resistance to

abrasion

Answer: C

249. When pyrolusite is fused with KOH in presence of air, the fused mass becomes:

A. Pink

B. Green

C. Red

D. Black

Answer: A

250. Tin is extracted from tin stone by heating

it in a furnace with:

A. $CaCO_3$

 $\mathsf{B.}\, CaO$

C. Steam

 $\mathsf{D.}\,Coke$

Answer: D

251. Smelting is done in:

A. Blast furnace

B. Muffle furnace

C. Open heart furnace

D. Electric furnace

Answer: A

252. The process of calcination and roasting

are carried out in:

A. Blast furnace

B. Muffle furnace

C. Reverberatory furnace

D. Open hearth furnace

Answer: C

253. In the extraction of lead from its ore galena, an important element recovered is:

A. Au

B. Ag

C. Cr

D. C

Answer: B

254. Lepidolite is an ore of:

A. K

B. Na

C. Li

D. Rd

Answer: C



255. Which is used for the extraction of cadmium from cadmium sulphate ?

A. Roasting

B. Reduction

C. Oxidation

D. Electrolysis

Answer: B

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256. Magnesite is:

A. $MgCl_2$

B. $MgCO_3$

C. MgO

D. $MgSO_3$

Answer: B

257. From which from of iron, other forms of

iron can be produced ?

A. Cast iron

B. Wrought iron

C. Pig iron

D. Steel

Answer: C

258. Silver obtained by argentiferrous lead is

purified by:

A. Distillation

B. Forth floatation

C. Cupellation

D. Reacting with KCN

Answer: C

259. Boron is found in form of:

A. Borax

B. Colemanite

C. Both

D. None

Answer: C

260. Which metal is not silver white?

A. Ni

B. Cu

C. Na

D. Sn

Answer: B



261. Antimony occurs mainly in form of:

A. Sulphide

B. stibnite

C. Realgar

D. Fluoropatite

Answer: B

262. Wolframite ore contains:

A. Zn

B.W

C. Hf

D. Au

Answer: B



263. Zinc metal is refined by:

A. Crystallisation

B. Sublimeation

C. Heating zinc to $100-150^{\,\circ}C$

D. Distillation

Answer: D

264. Oxidation method is used for refining of:

A. Pb

B. Cu

C. Hg

D. All

Answer: D

265. Mispickel is the ore of:

A. Sb

B. Bi

C. P

D. As

Answer: D



266. An alloy is :

- A. Mixture of two or more metals
- B. Solid solution of two or more metals or

metals and non metal

C. A solid solution of two or more non-

metal

D. None of these

Answer: B

267. The role of calcination in metallurgical operations is:

A. Magnesite ore

B. Dolomite ore

C. Malachite ore

D. All

Answer: D

268. The matte is impure substance otained

during extraction of:

A. Cu

B. Fe

C. Pb

D. Al

Answer: A

269. Which halogen exists in liquid state at

room temperature ?

A. Mercury

B. Potassium

C. Sodium

D. Titanium

Answer: A

270. What is meant by carbon reduction and electrolytic reduction with examples? What is the role of flux in the metallurgical operation? Name one mineral that can be used as a flux and describe its working.

A. CaO

B. SiO_2

C. Dolomite

D. All

Answer: D



271. RCOR is not converted to RCH_2R by:

A. It may not be removed as slag with silica

B. It may not evaporate in the furnace

C. Presence of it may increase the m.pt. of

charge

D. none of the above







272. During bessemerisation of copper, the reaction taking place in the bessemer convertor is:

A.
$$Cu_2S+2Cu_2O
ightarrow 6Cu+SO_2$$

B. $Cu_2S + FeS
ightarrow Cu_2S + FeO$

 $\mathsf{C}. \, FeO + SiO_2 \rightarrow FeSiO_3$

D. None

Answer: A



273. Lepidolite is an ore of:

A. Al

B. $MgSO_4$

C. Na

D. Cs

Answer: C

274. Softerning of lead means:

- A. Coversion of lead in to PbO
- B. Conversion of lead into Pb_3O_4
- C. Removal of metallic impuriies from lead
- D. Washing lead with HNO_3 followed by

dilute alkali solution

Answer: C

275. The removal of impurities from a crude

metal is called :

A. Matris or gangue

B. Slag

C. Flux

D. Ore

Answer: A

276. What is the function of limestone the extraction of iron? Give equation to explain its action.



277. Which is not essential for rusting?

A. Oxygen

B. Water

C. Carbon dioxide

D. Iron

Answer: C

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278. The smelting of iron in a blas furnace involves all the steps except:

A. Reduction

B. Fusion

C. Decomposition

D. Sublimation

Answer: D

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279. CO on passing over heated nickel gives:

- A. $NiCO_3$
- $\operatorname{B.}Ni(CO)_4$
- $\mathsf{C.}\,CO_2+H_2$
- $\mathsf{D}.\,CO+H_2$





280. The main ore of iron is:

A. Chloride

- B. Sulphate
- C. Nitride
- D. Oxide

Answer: D



281. Alloy formation gives rise to:

A. Decrease in corrosion

B. Increase in hardness

C. Decrease in conductivity

D. All are correct

Answer: D

282. Spelter is:

A. Impure zinc

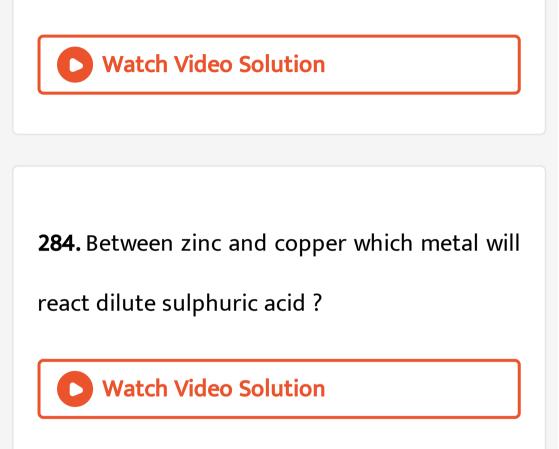
B. Impure iron

C. Pure zinc

D. Impure Al

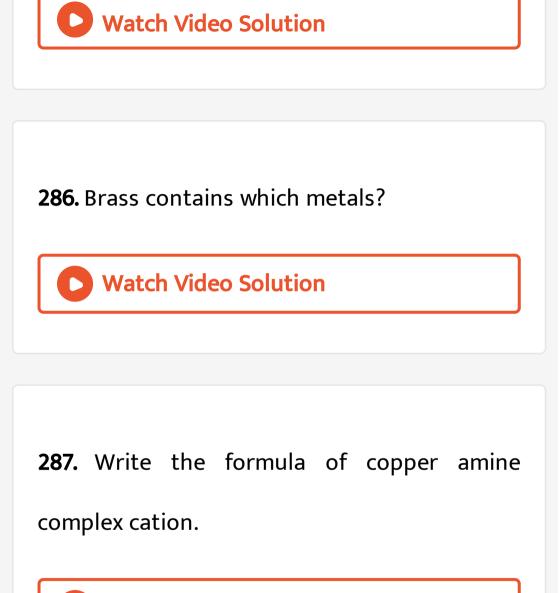
Answer: A

283. Name two ores of copper.



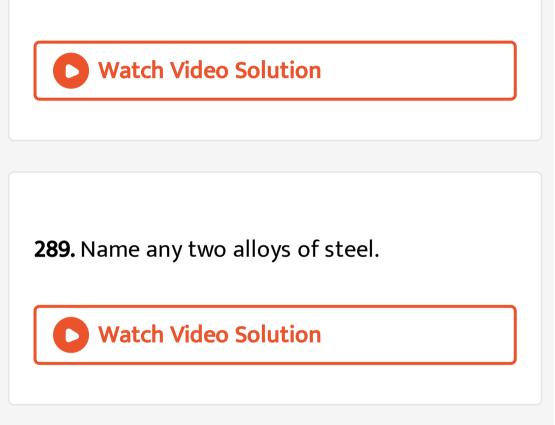
285. Name the process by which sulphide ore

is concentrated ?



288. Write down the composition of German

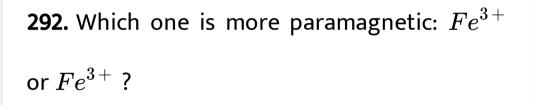
silver.



290. Name two ores of copper.

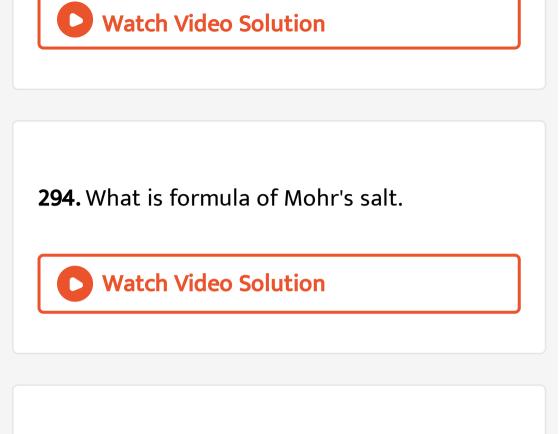
291. Name two alloys of copper.







293. What is formula of green vitriol?

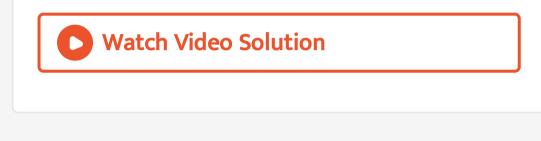


295. What is % of carbon in cast iron and in

steel?

296. What happens when potassium iodide is

added to $CuSO_4$ solution ?



297. Cast iron is harder than pure iron . Why?

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298. Calculate the oxidation number of chromium in $K_2Cr_2O_7$.



299. Copper metal obtained from Bessemer

converter is known as ____.

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300. What is Bessemerisation ?

301. Which is the lightest transition metal ?



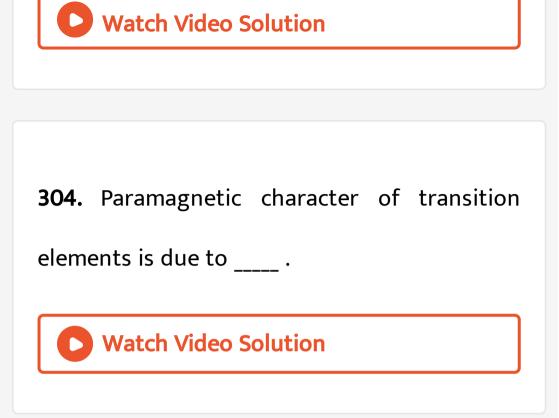
302. The highest oxidation state of transition

metal is what ?

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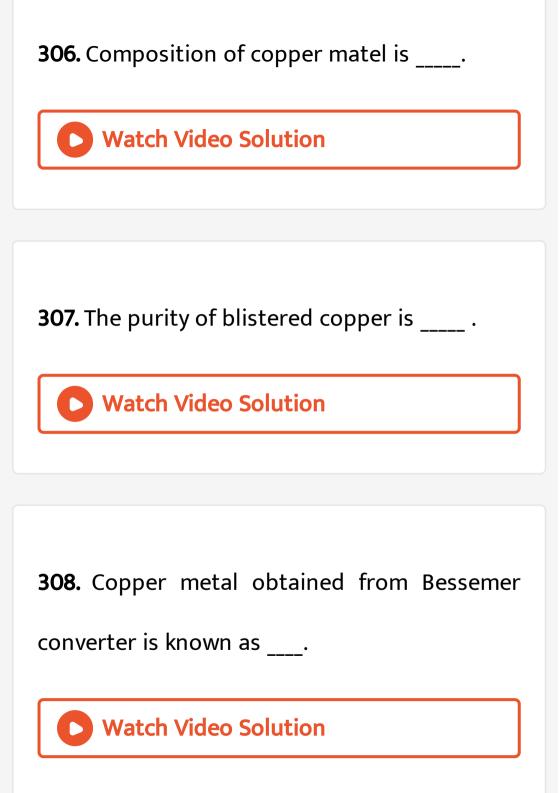
303. Explain why $CuSO_4$ is blue while $ZnSO_4$

is white.



305. The hardness of iron is mostly due to the

presence of ____.





310. Cast iron contains maximum percentage

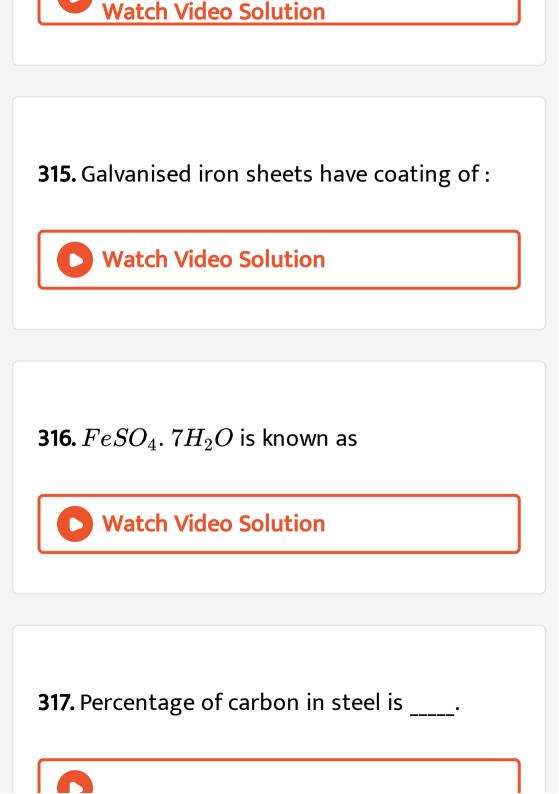
of _____ .

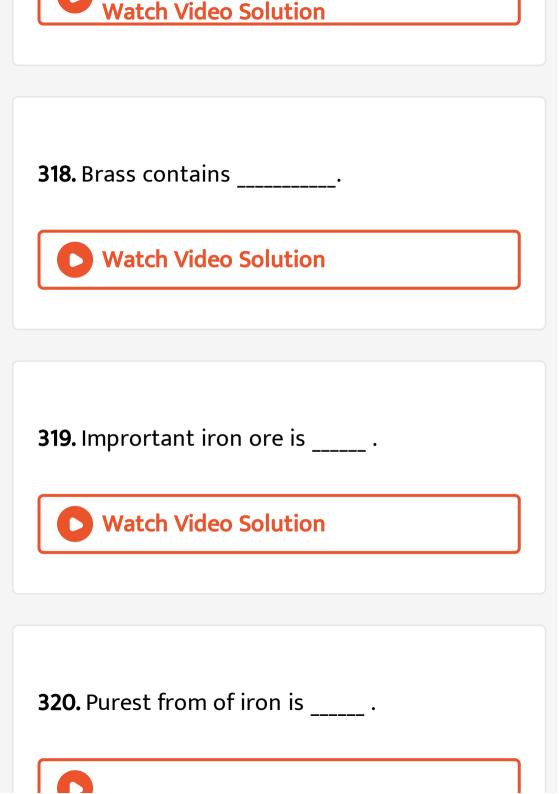
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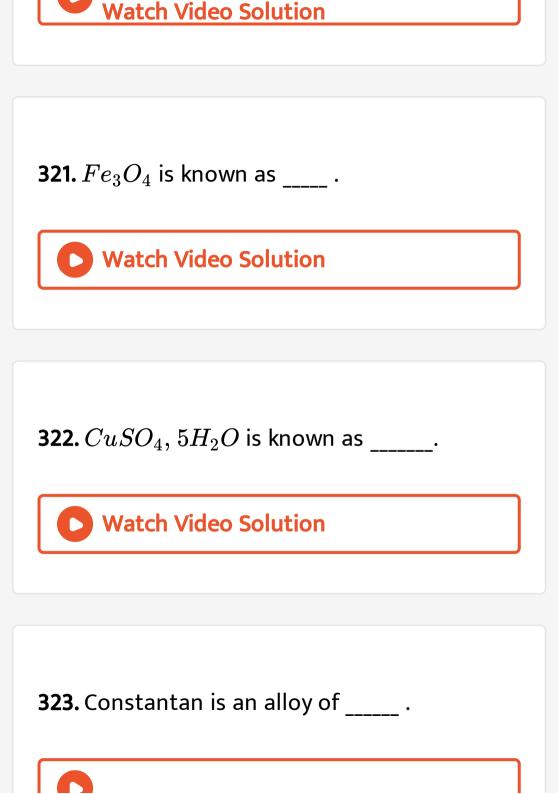
311. Azurite is the ore of _____.



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312. Bell metal is an alloy of and
Watch Video Solution
313. German silver is alloys of
Watch Video Solution
314. Mohr.s salt is







Watch Video Solution
324. Imprortant iron ore is
Watch Video Solution
325. During electrolytic method of extraction,
aluminium liberted at

326. Composition of copper matte is 20~%~ Cu

+ $80 \% Cu_2 S$ and FeS. Is it true or false?



327. The purity of blistered copper is 90~% .

Watch Video Solution

328. Galvanised iron sheets have coating of :

329. Important iron ore is iron pyrite

Watch Video Solution

330. Purest form of iron is cast iron. True or

False



331. Fe_3O_4 is known as haematite. True or False Watch Video Solution

332. Copper metal obtained from Bessemer

converter is known as ____.

333. Cast iron contains maximum percentage

of carbon. Is it true or false?

Watch Video Solution

334. Azurite is the ore of iron. Is it true or

false?



335. German silver is alloys of silver. True / False

Watch Video Solution

336. Define gangue, flux and slag with a suitable example.



337. What is calcination?



338. What is electro-refining ? Give one example.

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339. Distinguish between flux and slag?



340. What is the function of silica in copper extraction ? Watch Video Solution **341.** What is roasting? Watch Video Solution

342. How slag is formed in metal extraction ?

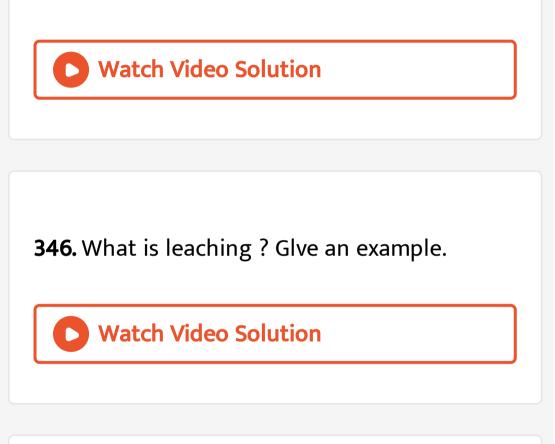
343. Distinguish between mineral and ore.

Watch Video Solution

344. What is difference between calcination and roasting ?

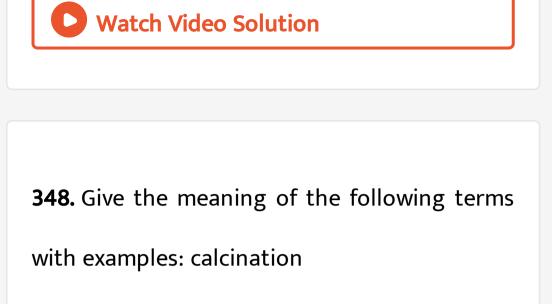
345. What is self-reduction in metallurgy? Give

example.



347. Discuss general methods of extraction of

metals giving suitable example.



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349. Give the meaning of the following terms

with examples: Roasting

350. Give the meaning of the following terms

with examples: Smelting





Aluminothermic process

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352. Which is not an ore of iron?

A. Siderite

- B. Limonite
- C. Bauxite
- D. Magnetite

Answer:

Watch Video Solution

353. Discuss the occurence and principle of

extraction of aluminium.





354. Discuss the occurrence and principle of

extraction of copper.



355. Discuss the occurreance and principle of

extraction of zinc.

356. Discuss the occurreance and principle of

extraction of iron.

Watch Video Solution

357. Which is not an ore of magnesium?

A. Carnallite

B. Dolomite

C. Gypsum

D. Magnesite





358. Which process is used for benefication of ores :

A. Process of removal of impurities

B. Process of heating ore at high

temperature

C. Extraction of metal From ore

D. None

Answer: A

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359. Radium is obtained from:

A. Pitchblende

B. Haematite

C. Monazite

D. None of these





360. In the metallurgy of iron , when limstone is added to the blast furnace , the calcium ions are removed as :

A. Slag

B. Gangue

C. Metallic Ca

D. $CaCO_3$





361. From gold amalgam , gold may be recovered by :

A. Addition of Zn metal

B. Electrolytic refining

C. Distillation

D. Dissolving Hg in HNO_3





362. Froth floatation method may be used to increase the concentration of mineral in

A. Chalcopyrite

B. Bauxite

C. Haemotite

D. Calamine





363. Copper pyrites ore is concentrated by

- A. Electromegnetic method
- B. Gravity method
- C. Froth floatation process
- D. All

Answer: C



364. Leaching is a process of:

A. Reduction

B. Concentration

C. Reformation

D. Oxidation

Answer: B

365. Malachite is an ore of :

A. Fe

B. Zn

C. Cu

D. Hg

Answer: C

366. Which of the following is not a basic flux ?

A. $CaCO_3$

B. CaO

 $\mathsf{C}.\,SiO_2$

D. MgO

Answer: C



367. The most abundant element in the earth crust is : A.O B. Si C. H D. C Answer: A

368. A mineral is known as ore if metal

- A. The metal present in the mineral is costly
- B. A metal can be extracted from it
- C. A metal can be profitably extyracted from it
- D. A mineral cannot be extracted from it

Answer: C

369. The most abundant metal in the earth crust is : A. Na B. Ca C. Al D. Fe

Answer: C

370. Gold is extracted using :

A. Amalgamation process

B. Carbon reduction process

C. Oxidation process

D. Electrolytic process

Answer: A

371. Extraction of silver from its ore involving NaCN , air and an active metal is known as :

A. Pattinson's method

B. Amalgamation method

C. Mc Arthur - Forrest method

D. Parke's method

Answer: C

372. In the thermite process, the reducing agent is :

A. C

B. Al

C. Na

D. Mg

Answer: B

373. Blanc fixe is :

A. $BaSO_4$

B. $BaCl_2$

 $C. BaCO_3$

D. None

Answer: A



374. Carbon reduction is used for the extraction of :

A. Fe

B. K

C. Al

D. None

Answer: A

375. Froth floatation process is based on :

A. Wetting properties of ore particles

B. Specific gravity of ore particles

C. Magnetic properties of ore particles

D. Electical properties of ore particles

Answer: A



376. Which contains both Ca and Mg?

A. Limestone

- B. Dolomite
- C. Chalk
- D. Felspar

Answer: B



377. Heating of ores with flux to remove non

fusible mass is called:

- A. Smelting
- **B.** Calcination
- C. Roasting
- D. Cupellation

Answer: A



378. In the electrolysis of alumina, cryolite is

added to :

A. Lower the melting point of alumina and

to increase the conductivity

B. Minimise the anode effect

C. Remove impurities from Alumina

D. None of the above

Answer: A

379. The process of converting hydrated alumina into anhydrous alumina is called :

A. Roasting

B. Smelting

C. Dressing

D. Calcination

Answer: D

380. Which of the following statement regarding the metallurgy of magnesium using electolytic method is not correct ?

A. Electrolyte is magnesium chloride

containing a littlr of NaCl and NaF

B. Air tight iron pot acts as a cathode

C. Electrolysis is done in the atmosphere of

coal gas .

D. Molten magnesium is having than the

electrolyte.

Answer: D

:



381. In the metallurgy of zinc , the zinc dust obtained from roasting and reduction of zinc sulphide contained some ZnO. It is removed by

A. Absorbance of ultraviolet light and remission of white light

B. Shock cooling by contact with a shower

of molten lead

C. X-ray method

D. Smelting

Answer: B

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382. Some of the metals occur in the native

state in nature because they :

A. Are reactive

B. Do not form ionic compounds

C. Are not reactive

D. None

Answer: C

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383. Complex formation or cyanide method is

used for the extraction of :

A. Cu

B. Fe

C. Hg

D. Ag

Answer: D

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384. An essential constituent of amalgam is :

B. Ag

C. Al

D. Hg

Answer: B

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385. Mercury is transported in metal

containers made up of :

B. Pb

C. Zn

D. Sn

Answer: A

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386. Impurities physically associated with minerals are:

B. Flux

C. Alloy

D. Matrix

Answer: D

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387. In concentration process of minerals by froth foloatation method , the ore particles float because :

A. They are light

B. They are insoluble

C. Their surface is hydrophobic

D. None

Answer: C

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388. The ore that is concentrated by froth

floatation process is

- A. Bauxite ore
- B. Haematite ore
- C. Cryolite ore
- D. Sulphide ore

Answer: D



389. Which consists of only one element?

A. Marble

B. Sand

C. Diamond

D. Glass

Answer: C

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390. Metallurgy is the process of :

A. Concentrating the ore

B. Roasting the ore

C. Extracting the metal from the ore

D. Adding carbon to the ore in blast

furnace

Answer: C

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391. The second most common element in the

universe is :

A. Silicon

B. Hydrogen

C. Nitrogen

D. Oxygen

Answer: A

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392. The main function of roasting is :

A. To remove the volatile matter

B. Oxidation

C. Reduction

D. To make slag

Answer: B



393. A and B are two allotropes of an elemt .

One gram of B in :

A. Oxidation number

B. Chemical composition

C. total number of atoms

D. Atomic arrangment

Answer: D



394. An element A dissolves both in acid and

alkali. It is an example of :

A. Allotropic nature of A

B. Dimorphic nature of A

C. Amorphous nature of A

D. Amophoteric nature of A

Answer: D

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395. In metallurgy , flux is a substance used to convert :

A. Infusible impurities to fusible mass

B. Mineral into silicate

C. Fusible impurities to infusible material

D. Soluble particles to insoluble impurities

Answer: A

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396. The metallurgical process in which a

metal is obtained in a fused state is called :

A. Smelting

B. Roasting

C. Calcination

D. Froth floatation

Answer: A



397. Which pair of element cannot form an alloy :

A. Zn , Hg

B. Fe, Hg

C.Fe,C

D. Hg , Na

Answer: B

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398. Which metal is extracted by a reduction

process :

A. Na

B. Al

C. Fe

D. Mg

Answer: C



399. Alloys of which metal are light and strong

and used in the manufacture of aeroplanes :

A. Cr

B. Sn

C. Fe

D. Mg

Answer: D



400. Alloy is an example of :

A. Gel

B. Aerosal

C. Solid sol

D. Emulsion

Answer: C

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401. Gold when dissolved in aqua-regia gives :

A. Auric chloride

- B. Aurous chloride
- C. Chloroauric acid
- D. Tempering





402. Ferric oxide in blast furnance is reduced by :

A. C

 $\mathsf{B}.\,H_2$

C. CO

 $\mathsf{D.}\,CO_2$





403. Electric furnaces are lined with magnesia because :

A. It is not affected by acids

B. It liberates oxygen on heating

C. It melts at very high temperature

D. it has no effect of electricity





404. High purity copper metal is obtained by :

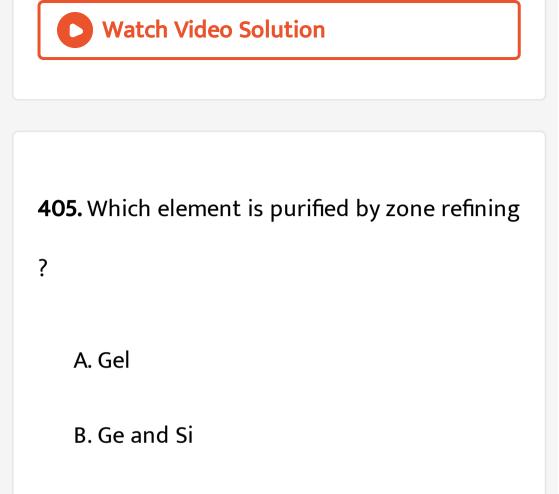
A. Carbon reduction

B. Hydrogen reduction

C. Electrolytic reduction

D. Thermite process

Answer: C



- C. Si
- D. None

Answer: B





406. Gold is found usually near Minerals.

A. Mica

B. Felspar

C. Quartz

D. Galena

Answer: C

407. CO is used in the metallurgy of :

A. Cu

B. Ni

C. Cr

D. Pt

Answer: B



408. Chalcogens are :

A. Hydrocarbons

B. Ore formating elements

C. Oxide forming elements

D. Those having ability to catenate

Answer: B

409. wulfenite (a yellow - red mineral) having waxy lusture occurs in lead ores , is an important source of :

A. Sulphur

B. Molybdenum

C. Helium

D. Lead

Answer: B

410. Slag coming out at the bottom of a blast furance during extraction of iron from its ores , is used in making :

A. Roads

B. Fertilizers

C. Plastics

D. Glass moulds

Answer: A

411. Which element occurs in free state in nature ?A. FeB. Co

C. Pt

D. Ni

Answer: C

412. Which of the following is a metal?

A. P

B. As

C. Bi

D. Sb

Answer: C



413. Leaching process is used to get :-

A. Ag

B. Au

C. Both

D. None

Answer: C

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414. Roasting is used in the extraction of :

A. Gelena

B. Iron pyrite

C. Copper glance

D. All

Answer: D

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415. Pollucite is an ore of :

A. Li

B. Rb

C. K

D. Cs

Answer: D



416. Which among the following has highest

electrical conductivty?

A. Zn

B. Fe

C. Ag

D. Cu

Answer: C



417. Mg burns with a brilliant flame.This property is used in:

A. Deoxidation

B. Confectionary

C. Indoor photography

D. Thermite welding

Answer: D

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418. Which is not an ore?

A. Bauxite

B. Malachite

C. Zinc blende

D. Pig iron

Answer: D

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419. Which is not an ore :

A. Cinnabar

B. Malachite

C. Zinc blende

D. Wrought iron

Answer: D



420. Heating of pyrite ores in air to remove sulphur is known as :

A. Calcination

B. Fluxing

C. Smelting

D. Roasting

Answer: D



421. Among the following group of oxides, the group containing oxides that cannot be reduced by carbon to give the respective metals, is :

A. Cu_2O, SnO_2

B. Fe_2O_3, ZnO

C. CaO , K_2O

D. PbO, Fe_3O_4

Answer: C

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422. The electrolytic reduction technique is used in the extraction of :

A. Highly electronegative elements

B. Highly electropositive elements

C. Metalloids

D. Transition metals

Answer: B

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423. Furances are lined with calcium oxide because :

A. It gives off oxygen on heating

B. It gives light on heating

C. It is refractory and basic

D. It is not affected by acids

Answer: C

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424. The process in which ore is heated in air below its melting point is known as :

A. Roasting

B. Calcination

C. Reduction

D. Distillation

Answer: A

Watch Video Solution

425. The mental that is extracted from sea water is :

A. Na

B. Ca

C. Mg

D. Sn

Answer: C

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426. Extraction of metal from sulphide ore is made by :

- A. Electrolysis
- B. Roasting
- C. Hydrometallurgy

D. None

Answer: B

Watch Video Solution

427. Which of the following processes involves the roasting process ?

A. $ZncO_3
ightarrow ZnO + CO_2$

B. $Fe_2O_3 + 3C
ightarrow 2Fe_3CO$

 $\text{C.} \ 2PbS + 3O_2 \rightarrow 2PbO + 2SO_2$

D. $Al_2O_3\cdot 2H_2O o Al_2O_3+2H_2O$

Answer: C

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428. Corundum is :

A. SrO_2

 $\mathsf{B.}\,Al_2O_3$

 $C. CaCl_2$

D. Cu_2Cl_2





429. Which metal is sometimes found in native

state ?

A. Al

B. Cu

C. Fe

D. Mg





430. Which elements found in human body :

A. Pb

B. Fe

C. Cd

D. Al

Answer: B



431. presence of small impurity usually makes a metal quite hard because the impurities

A. Change the lattice structure of metals

B. Reduce the number of slide planes

C. Reduce the number of mobile electrons

D. Reduse the crystal symmetry

Answer: B





432. The phenomenon in which white transparent crystal changes into white powder is known as :

A. Sublimation

B. Allotropy

C. Efflorescence

D. Deliquescence







433. Which substance can be used for drying basic gases :

A. $CaCO_3$

 $\mathsf{B.}\,Na_2CO_3$

 $C. CaHCO_3$

D. CaO

Answer: D

434. The cheap and high melting point compound used in furnace lining is :

A. PbO

B. CaO

C. HgO

D. ZnO

Answer: B



435. Which element occurs freely in nature ?

A. lodine

B. Sulphur

C. Phosphorus

D. Magnesium

Answer: B

436. The lightest metal is :

A. Li

B. Mg

C. Ca

D. Na

Answer: A



437. Which of the elements listed below shows

allotropic forms?

A. lodine

B. Copper

C. Sulphur

D. Silver

Answer: C

438. The most malleable metal is :

A. Silver

B. Sodium

C. Gold

D. Platinum

Answer: C



439. Concentration of the ore is done :

A. To make the ore porus

B. To make the ore fit for electrolysis

C. To drive off the volatile impurities

D. To free it from as many as impurities as

much possible.

Answer: D

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440. The purpose of smelting of an ore is :

A. To oxidise it

B. To reduce it

C. To separate volatile impurities

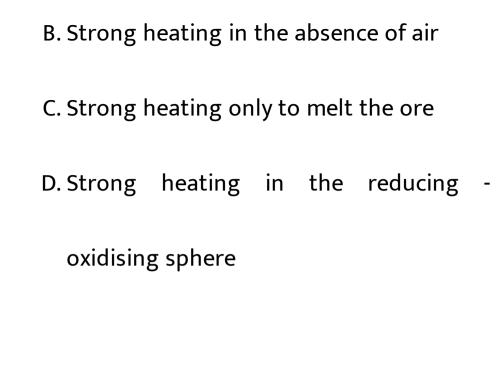
D. To obtain an alloy

Answer: C

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441. Calcination of an ore means :

A. Strong heating in presence of air



Answer: C

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442. The metal used in storage batteries is :

B. Sn

C. Pb

D. Ni

Answer: C

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443. In blast furnace , the cup and cone arrangement is used :

A. To escape the gases during charging

B. Not to allow the escape of the gases

C. To heat the charge with the gases

D. None of these

Answer: C

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444. The process of heating the ore strongly in excess of air so that the volatile impurities are removed and the ore is changed to oxide is known as :

A. Calcination

B. Roasting

C. Forth floatation

D. Leaching

Answer: B

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445. Liquid crystals are best used in :

A. Colour TV

B. Crystallization

C. Extraction

D. e/m determination

Answer: A

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446. The existence of two or more crystalline

forms of the same substance is called :

A. Polymorphism

B. Isomerism

C. Homologues

D. Isomorphism

Answer: A

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447. In the reverberatory furnace :

A. The flames donot come in contact with

the charge

B. The flames come in contact with the

charge

C. Only hot gases come in contact with the

charge

D. The flames are not there at all

Answer: C

448. Two compounds having the same crystal

structures and analogous formulae are called :

A. Isomorphous

B. Isotopes

C. Isomers

D. Isobars

Answer: A

449. Which metal is extracted by electrolytic reduction ?

A. Iron

B. Copper

C. Silver

D. Aluminium

Answer: D

450. Refractory materials are used for the construction of furnaces because they :

A. are light in weight

B. can stand with high temperature

C. are leak proof

D. do not require to be replaced

Answer: B

451. Roasting is generally done in case of :

A. Oxide ores

- B. Silicate ores
- C. Sulphide ores
- D. Carbonate ores

Answer: C



452. Cupellation process is used in he metallurgy of :

A. Copper

B. Silver

C. Lead

D. Iron

Answer: B

453. Crystalline metal can be transformed into

metallic glass by :

A. Alloying

B. Pressing into thin plates

C. Slow cooling of molten metal

D. Very rapid cooling of a spray of the

molten metal

Answer: D

454. An alloy is :

A. Intermetallic compound

B.A solid substance containing two or

more elements

C. A solid which contains one non-metal

D. A solid which contains more than one

non -metal

Answer: B

455. The electrolytic method of reduction is employed for the preparation of metals that :

A. are weakely electropositive

B. are moderately electropositive

C. are strongly electropositive

D. from oxides

Answer: C

456. Electrometallurgical process (electrolysis

of fused salt) is employed to extract :

A. Iron

B. Lead

C. Sodium

D. Silver

Answer: C

457. The metalloid amongst the following is:

A. Arsenic

B. Sodium

C. Gold

D. Iron

Answer: A

458. When limestone is heated, carbon dioxide is given off. This operation in metallurgy is known as:

A. Smelting

B. re-dressing

C. calcination

D. Roasting

Answer: C

459. The salt which least likely to be found in

minerals is

A. Chloride

B. Sulphate

C. Sulphide

D. Nitrate

Answer: D

460. The role of calcination in metallurgical

operations is:

A. To remove moiture

B. To decompose carbonate

C. to drive off organic matter

D. to achieve all these

Answer: D

461. Which metal cannot be extracted by

carbon reduction process?

A. Pb

B. Al

C. Hg

D. Zn

Answer: B

462. Hydrometallurgy is useful in the

extraction of:

A. Sn

B. Al

C. Hg

D. Ag

Answer: D

463. In electro-refining of metal the impure metal is made the anode and a strip of pure metal the cathode during the electrolysis of an aqueous solution of a complex metal salt. This method cannot be used for refining of:

A. silver

B. Copper

C. Aluminium

D. Sodium

Answer: B



464. In the froth floatation process of concentration of ores, the ore particles float because they:

A. are light

B. are insoluble

C. have the surface which is not wetted easily

D. have a constant electrical charge





465. The metal that cannot be obtained by electrolysis of the aqueous solution of their salts is:

A. Ag

B. Mg

C. Cu

D. Cr





466. The inner lining of a blast furnace is made up of

- A. Graphite bricks
- B. Silica bricks
- C. Fire clay bricks
- D. Basic bricks

Answer: C



467. Diaspore is:

A. Al_2O_3 . H_2O

B. $Al_2O_{3.2}H_2O$

 $\mathsf{C.}\,Al_2O_3$

D. $Al_2O_{3.3}H_2O$

Answer: A



468. The matel obtained by self reduction process is:

A. Cu

B. Hg

C. Pb

D. All

Answer: D





469. Silver is exfracted by:

A. upellation method

B. Parke's process

C. Pattinson's process

D. All

Answer: D

470. Pig iron is converted into steel by decreasing the amount of carbon contained in it, in a:

- A. Blast furnace
- B. Pyrite burner
- C. Bessemer converter
- D. none of the above

Answer: C

471. Carbon reduction method is used in the extraction of:

A. Su

B. Zn

C. Pb

D. All

Answer: D

472. The pyrolusite ore contains:

A. Fe

B. Al

C. Mn

D. Cu

Answer: C



473. Chile saltpetre is the ore of:

A. Mg

B. K

C. Na

D. Ca

Answer: C

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474. Liquation is used to purify:

B. Sn

C. Bi

D. All

Answer: D

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475. Which is not a mineral?

A. Mica

B. Peat

C. Quartz

D. Felspar

Answer: B

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476. The chemical composition of Carnallite is:

A. KCl. $MgCl_{2.6}H_2O$

 $\mathsf{B.}\, MgSO_{4.7}H_2O$

 $\mathsf{C.}\,MgCO_{3.7}H_2O$

D. $MgCO_3$

Answer: A

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477. An important characteristic property of metals is:

A. Their hardness

B. Their ability to conduct electricity

C. To form oxides

D. The stability of their compounds

Answer: B

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478. The ore concentrated by electromagnetic

saparation is

A. Wolframine

B. Haemetite

C. Casseterite

D. All

Answer: D

Watch Video Solution

479. Kiesserite is an ore of:

A. Cu

B. Al

C. Mg

D. Felspar

Answer: C



480. Thomas slag is:

A. Calcium silicate

B. Calcium phosphate

C. Tricalcium phosphate and calcium

silicate

D. calcium ammonium phosphate





481. Which is not found in native state:

A. Pt

B. Au

C. Cu

D. Na

Answer: D



482. Pentalandite is an ore of:

A. Fe

B. Copper

C. Cu

D. Nitrate

Answer: D

483. The ore magnesite is:

A. $MgCO_3$. $CaCO_3$

 $\mathsf{B.}\,MgCl_2.\,KCl.6H_2O$

 $\mathsf{C.}\,MgSO_{4.7}H_2O$

D. $MgCO_3$

Answer: B

484. Beryl is an important ore of:

A. Boron

B. Beryllium

C. Lead

D. Lithium

Answer: D



485. Rutile is an ore of:

A. Ti

B.Zr

C. Mn

D. V

Answer: A



486. Indian salpetre is:

A. KNO_2

 $\mathsf{B.}\,KNO_3$

C. NaCl

D. Na_2CO_3

Answer: B

487. Extraction of Ag from commercial lead is

possible by:

A. Parke's process

B. Clarke's process

C. Pattinson's process

D. electrolytic process

Answer: A

488. Malachite ore is:

A. Cu_2S

B. Cu_2O

 $C. CuCO_3$

D. $CuCO_3$. $Cu(OH)_2$

Answer: D



489. Orford process is used in extraction of:

A. Pt

B. Copper

C. Fe

D. Nitrate

Answer: B

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490. Blister copper is obtained by:

A. Bessemerisation

B. Roasting

C. poling

D. Refining

Answer: A

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491. The grey cast iron contains:

A. Iron carbide

B. Silicon carbide

C. silicon dioxide

D. Graphite

Answer: D



492. Pig iron is manufactured by:

A. An electric furnace

B. A blast furnace

C. An open heart furnace

D. None of these

Answer: B

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493. Which is acidic flux ?

A. CaO

B. SiO_2

 $\mathsf{C.}\,Al_2O_3$

D. Fe_2O_3





494. In India thorium deposits are found mainly in the forms of:

A. Liqnite

B. Rutile

C. Monazite

D. None





495. Bessemer convergter is used in the manufacture of

A. Pig iron

B. Steel

C. Wrought iron

D. Cast iron





496. Which of the following metal is thrown as anode mud during electrolytic refining of copper?

A. Zn

B. Fe

C. Ag

D. Ni





497. Plumbo-solvency refers to:

- A. Oxidation of lead to lead oxide
- B. Oxidation of lead to red lead
- C. Dissolution of lead in water containing

are

D. Making lead wires by forcing heated

metal though a die

Answer: C

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498. Which metal occurs in free state:

A. Ag

B. Au

C. Pt

D. All

Answer: D

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499. The main constituent of steel in india are:

A. Ni and Mg

B. V andCo

C. Al and Zn

D. Mn and Cr





500. The incorrect statement is:

- A. Calamine and Siderrite are carbonates
- B. Argentite and Cuprites oxides
- C. An blende and iron pyrties are sulphides
- D. Malachite and azurite are ores of Cu

Answer: B



501. Alkaline earth metals are not found free in

nature because of their:

A. Their high b. pt.

B. Their llow b. pt.

C. Thermal instability

D. Their great chemical activity





502. Iron is obtained on large scale from Fe_2O_3 by:

A. Reduction with CO

B. Reducing with Al

C. calcination

D. Passing H_2

Answer: A

503. Maganetic separtion is used for increasing concentration of the:

A. Horn silver

B. Calcite

C. Haemarite

D. Magnetite

Answer: C

504. Which is not an iron ore?

A. Haematite

B. Limonite

C. Casseterite

D. Magnetite

Answer: C

505. Platinum, Palladium, Indium, etc. are called noble metals because:

A. Alfred nobel discovered them

B. They are inert towards many common

reagents

C. The are shining, lustrous and pleasing to

look at

D. They are found in native state







506. Purest from of iron is _____.

A. Cast iron

B. Hard steel

C. Stainless steel

D. Wrought iron

Answer: D

507. Sapphire is a mineral of :

A. Zn

B. Cu

C. Hg

D. Al



508. The main ore of zinc is:

- A. Zinc blende
- B. Zincite
- C. Calamine
- D. All



509. Calcium occurs in nature as:

A. Limestone

B. Marble

C. Dolomite

D. All



510. The metal which cannot be extracted by

smelting process?

A. Pb

B. Fe

C. Zn

D. Al

Answer: C

511. Which does not contain aluminium:

A. Bauxite

B. Emery

C. Rutile

D. Corundum

Answer: C

512. Which is incorrect as the uses of limestone in industries are concerned?

A. For making cement

B. In the extraction of Snfrom its ore

C. In the extraction of Fe from its ore

D. In the manufacture of gass

Answer: B

513. Which is not a silver ore ?

A. Argentite

B. Siderite

C. Horn silver

D. Ruby silver

Answer: B



514. Iron is made inactive or passive by:

A. H_3PO_4

B. Conc. HNO_3

C. Conc. H_2SO_4

D. Dil. HNO_3

Answer: B

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515. The mineral of copper is:

A. Azurite

B. Malachite

C. Copper pyrites

D. All

Answer: D

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516. Granulated zinc is obtained by:

A. Suddenly colling molten zinc

B. Adding molten zinc to water

C. Heating zinc to $100-150^{\,\circ}C$

D. Dropping molten zinc drop by drop

Answer: B

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517. After partial roasting, the sulphide of copper is reduced by:

A. Cyanide process

B. Electrolysis

C. Reduction with carbon

D. Self reduction

Answer: D



518. Which process is not used in purification

of bauxite ?

A. Hall's method

B. Baeyer's method

C. Serpek,s method

D. Frankland,s method

Answer: D

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519. Electrolysis of fused carnallite gives:

A. Mg

B. K

C. K and CO_2

D. K, Mg and Cl_2

Answer: D

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520. Which is not an ore of leads?

A. Galena

B. Cassiterite

C. Anglesite

D. Cerussite

Answer: B



521. Coating of zinc on iron objects is commonly known as:

A. Electroplating

- B. Surface coating
- C. Galvanising
- D. Sheardising





522. In serpek's process, by product obtained in the purification of bauxite is:

A. Al_2O_3

B. N_2

 $\mathsf{C}.HN_3$

D. None





523. The sand stone in some iron ores is removed by:

A. Carbon filters

B. Compressed air

C. Limestone

D. Sulphuric acid





524. Which is metalloid ?

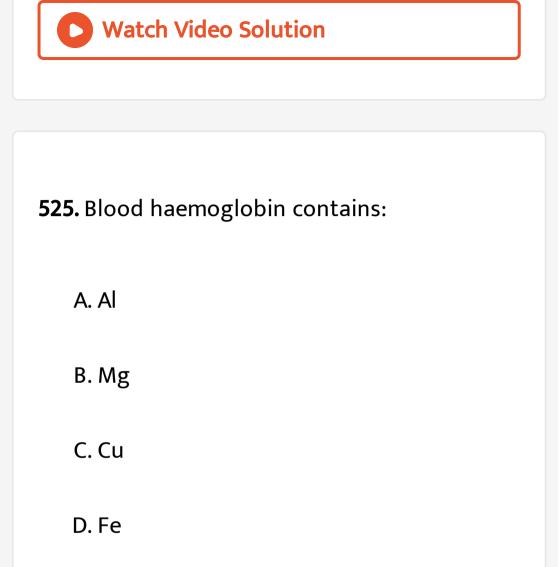
A. Na

B. Au

C. As

D. Fe

Answer: C



Answer: C



526. Which set of elements is called chalcogens ?

A. Cl, Br, I

B. O, S, Se

C. N, P, As

D. C, Si, Ge

Answer: B

527. Which metal is chiefly used in galvanising

Fe?

A. Cr

B. Zn

C. Cd

D. Sn

Answer: D

528. The iron obtained from the blast furnace

is called as

A. Steel

B. Cast iron

C. Wrought iron

D. Pig iron

Answer: C

529. Which is not an ore of nickel ?

- A. Nickel glance
- B. Garnerite
- C. Haematite
- D. Pentlandite

Answer: C



530. Amalgams are:

A. Highly coloured alloys

B. Always in liquid state

C. Alloys which contain Hg as one of the

constituents

D. Alloys which have a great resistance to

abrasion

Answer: C

531. When pyrolusite is fused with KOH in presence of air, the fused mass becomes:

A. Pink

B. Green

C. Red

D. Black

Answer: A

532. Tin is extracted from tin stone by heating

it in a furnace with:

A. $CaCO_3$

B. CaO

C. Steam

D. Coal

Answer: D

533. Smelting is done in:

A. Blast furnace

B. Muffle furnace

C. Open heart furnace

D. Electric furnace

Answer: A

534. The process of calcination and roasting

are carried out in:

A. Blast furnace

B. Muffle furnace

C. Reverberatory furnace

D. Open hearth furnace

Answer: C

535. In the extraction of lead from its ore galena, an important element recovered is:

A. Au

B. Ag

C. Cr

D. C

Answer: B

536. Lepidolite is an ore of:

A. K

B. Na

C. Li

D. Rd

Answer: C



537. Which is used for the extraction of cadmium from cadmium sulphate ?

A. Roasting

B. Reduction

C. Oxidation

D. Electrolysis

Answer: B

538. Magnesite is:

A. $MgCl_2$

B. $MgCO_3$

C. MgO

D. $MgSO_3$

Answer: B



539. From which from of iron, other forms of

iron can be produced ?

A. Cast iron

B. Wrought iron

C. Pig iron

D. Steel

Answer: C

540. Silver obtained by argentiferrous lead is

purified by:

A. Distillation

B. Forth floatation

C. Cupellation

D. Reacting with KCN

Answer: C

541. Boron is found in form of:

A. Borax

B. Colemanite

C. Both

D. None

Answer: C

542. Which metal is not silver white?

A. Ni

B. Cu

C. Na

D. Sn

Answer: B



543. Antimony occurs mainly in form of:

A. Sulphide

B. stibnie

C. Realgar

D. Fluoropatite

Answer: B

544. Wolframite ore contains:

A. Zn

B. Wrought iron

C. Hf

D. Au

Answer: B



545. Zinc metal is refined by:

A. Crystallisation

B. Sublimeation

C. Heating zinc to $100-150^{\,\circ}C$

D. Distillation

Answer: D

546. Oxidation method is used for refining of:

A. Pb

B. Cu

C. Hg

D. All

Answer: D

547. Mispickel is the ore of:

A. Sb

B. Bi

C. P

D. As

Answer: D



548. An alloy is :

- A. Mixture of two or more metals
- B. Solid solution of two or more metals or

metals and non metal

C. A solid solution of two or more non-

metal

D. None of these

Answer: B

549. Calcination is used in the metallurgy of:

A. Magnesite ore

B. Dolomite ore

C. Malachite ore

D. All

Answer: D

550. Which is used for the extraction of cadmium from cadmium sulphate ?

A. Roasting

B. Reduction

C. Oxidation

D. Electrolysis

Answer: A

551. Which one is liquid at room temperature:

A. Mercury

B. Potassium

C. Sodium

D. Titanium

Answer: A

552. Which is used as a flux ?

A. CaO

 $\mathsf{B.}\,SiO_2$

C. Dolomite

D. All

Answer: D



553. Before introducing FeO in blast furnace, it is converted to Fe_2O_3 by roasting so that:

A. It may not be removed as slag with silica

B. It may not evaporate in the furnace

C. Presence of it may increase the m.pt. of

charge

D. none of the above

Answer: A



554. During bessemerisation of copper, the reaction taking place in the bessemer convertor is:

A.
$$Cu_2S+2Cu_2O
ightarrow 6Cu+SO_2$$

 $\mathsf{B.}\, Cu_2S + FeS \rightarrow Cu_2S + FeO$

 $\mathsf{C}.\,FeO+SiO_2\to FeSiO_3$

D. None

Answer: A

555. Lepidolite, a lithium ore, also contains:

A. Ru

B. k`

C. Na

D. Cs

Answer: C

556. Softerning of lead means:

A. Coversion of lead in to PbO

- B. Conversion of lead into Pb_3O_4
- C. Removal of metallic impuriies from lead
- D. Washing lead with HNO_3 followed by

dilute alkali solution

Answer: C

557. A mineral is usually accompanied by large

amount of undesirable impurities called:

A. Matris or gangue

B. Slag

C. Flux

D. Ore

Answer: A

558. Passivity of iron is due to the formation of

thin film of its :

A. Oxide

B. Carbonate

C. Nitride

D. Hydroxide

Answer: A

559. Which is not essential for rusting?

A. Oxygen

B. Water

C. Carbon dioxide

D. Iron

Answer: C

560. The smelting of iron in a blas furnace

involves all the steps except:

A. Reduction

B. Fusion

C. Decomposition

D. Sublimation

Answer: D

561. CO on passing over heated nickel gives:

A. $NiCO_3$

B. $Ni(CO)_4$

 $\mathsf{C.}\,CO_2+H_2$

 $\mathsf{D}.\,CO+H_2$

Answer: B



562. The main ore of iron is:

A. Chloride

- B. Sulphate
- C. Nitride
- D. Oxide

Answer: D

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563. Alloy formation gives rise to:

A. Decrease in corrosion

- B. Increase in hardness
- C. Decrease in conductivity
- D. All are correct

Answer: D

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564. Spelter is:

A. Impure zinc

B. Impure iron

C. Pure zinc

D. Impure Al

Answer: A

