General Principles and Processes of Isolation of Elements

Q.No.1: Which one of the following ores is best concentrated by froth floatation method? **JEE 2016**

A. Siderite
B. Galena
C. Malachite
D. Magnetite

Q.No.2: Galvanization is applying a coating of: **JEE 2016**

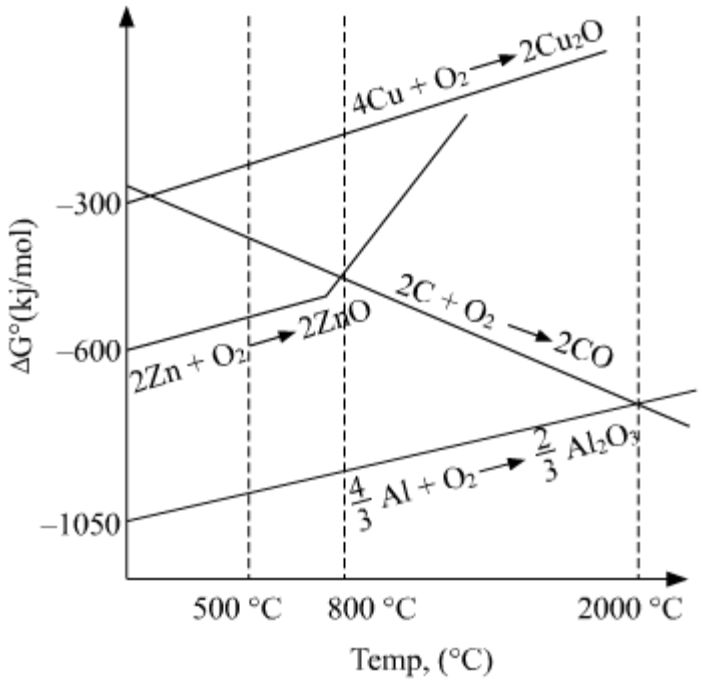
A. Cr
B. Cu
C. Zn
D. Pb

Q.No.3: The ore that contains both iron and copper is: **JEE 2019**

A. copper pyrites
B. malachite
C. dolomite
D. azurite

Q.No.4: The correct statement regarding the given Ellingham diagram is:

JEE 2019



A. At 1400°C, Al can be used for the extraction of Zn from ZnO

B. At 500°C, coke can be used for the extraction of Zn from ZnO

C. Coke cannot be used for the extraction of Cu from Cu_2O.

D. At 800°C, Cu can be used for the extraction of Zn from ZnO.

Q.No.5: The electrolytes usually used in the electroplating of gold and silver, respectively, are : **JEE 2019**

A. $[Au(CN)_2]^-$ and $\{Ag(CN)_2]^-$

B. $[Au(CN)_2]^-$ and $[AgCl_2]^-$

C. $[Au(OH)_4]^-$ and $[Ag(OH)_2]^-$

D. $[Au(NH_3)_2]^+$ and $[Ag(CN)_2]^-$

Q.No.6: The reaction that does NOT define calcination is : **JEE 2019**

A. $\mathrm{Fe_2\,O_3 \cdot \mathit{x}H_2O \xrightarrow{\Delta} Fe_2\,O_3 + \mathit{x}H_2O}$

B. $\mathrm{2\,Cu_2\,S + 3O_2 \xrightarrow{\Delta} 2\,Cu_2\,O + 2\,SO_2}$

C. $\mathrm{ZnCO_3 \xrightarrow{\Delta} ZnO + CO_2}$

D. $\mathrm{CaCO_3 \cdot MgCO_3 \xrightarrow{\Delta} CaO + MgO + 2\,CO_2}$

Q.No.7: Match the ores (column A) with the metals (column B):

(Column A) Ores	(Column B) Metals
(I) Siderite	(a) Zinc
(II) Kaolinite	(b) Copper
(III) Malachite	(c) Iron
(IV) Calamine	(d) Aluminium

JEE 2019

A. (I) - (a); (II) - (b); (III) - (c); (IV) - (d)
B. (I) - (c); (II) - (d); (III) - (b); (IV) - (a)
C. (I) - (c); (II) - (d); (III) - (a); (IV) - (b)
D. (I) - (b); (II) - (c); (III) - (d); (IV) - (a)

Q.No.8: Match List-I with List-II.

List-I (Metal)	List-II (Ores)
(a) Aluminium	(i) Siderite
(b) Iron	(ii) Calamine
(c) Copper	(iii) Kaolinite
(d) Zinc	(iv) Malachite

Choose the correct answer from the options given below: **JEE 2021**

A. (a)-(i), (b)-(ii), (c)-(iii), (d)-(iv)
B. (a)-(ii), (b)-(iv), (c)-(i), (d)-(iii)
C. (a)-(iii), (b)-(i), (c)-(iv), (d)-(ii)
D. (a)-(iv), (b)-(iii), (c)-(ii), (d)-(i)

Q.No.9: The major components in "Gun Metal" are: **JEE 2021**

A. Cu, Ni and Fe
B. Cu, Sn and Zn
C. Al, Cu, Mg and Mn
D. Cu, Zn and Ni

Q.No.10: Which of the following ore is concentrated using group 1 cyanide salt? **JEE 2021**

A. Sphalerite

B. Malachite

C. Siderite

D. Calamine