

**Only One Correct Answer :**

1. Which of the following cases roasting process is used for-

(A) Extraction of Fe from Fe_2O_3	(B) Extraction of Pb from PbS
(C) Extraction of Zn from zinc blende	(D) All of these

2. The substance not likely to contain CaCO_3 is:

(A) Sea shells	(B) Dolomite	(C) Marble statue	(D) Calcined gypsum
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3. Find the incorrect match

(A) Azurite	(P) $\text{CuCO}_3 \cdot 2\text{Cu}(\text{OH})_2$
(B) Malachite	(Q) $\text{Cu}(\text{OH})_2 \cdot \text{CuCO}_3$
(C) Anglesite	(R) PbSO_4
(D) Chalcocite	(S) Cu_2S

4. In Goldschmidt aluminothermic process, thermite mixture contains :

(A) 3 parts Fe_2O_3 and 2 parts Al	(B) 3 parts Al_2O_3 and 4 parts Al
(C) 1 part Fe_2O_3 and 12 part Al	(D) 3 parts Fe_2O_3 and 1 part Al

5. Which of the following metals are obtained by auto reduction method:
Pb, Mn, Cu, Cr, Fe, Al.

(A) Cu, Fe	(B) Cu, Pb, Mn	(C) Mn, Cr, Pb	(D) Pb, Cu
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6. Which of the following statement is correct

(A) Roasting is unnecessarily done for Fe-extraction because there is no sulphide ore
(B) In the smelting step of Cu-extraction, reduction of the ore takes place.
(C) Ores may not be mineral
(D) Sphalerite is the ore of the zinc

More than one correct :

7. Carbon reduction is not used for extraction of Al from Al_2O_3 because

(A) High temperature is required
(B) It incurs huge cost
(C) Al is obtained in the solid form and its separation becomes difficult
(D) It forms carbide with the used coke powder at that temperature



Matrix Match type

8. Match the column -

	Column-I		Column-II
(A)	Froth floatation	(P)	Based upon thermal decomposition reaction
(B)	Roasting	(Q)	Oxidation of the ore takes place
(C)	Calcination	(R)	Adsorption is associated
(D)	Hydrometallurgical reduction	(S)	Metal replacement reaction takes place
		(T)	High temperature is associated

9. Match the column :

	Column-I		Column-II (steps involve during given change)
(A)	$\text{ZnCO}_3 \longrightarrow \text{Zn}$	(P)	Calcination
(B)	$\text{ZnS} \longrightarrow \text{ZnO}$	(Q)	Roasting
(C)	$\text{HgS} \longrightarrow \text{Hg}$	(R)	Self reduction
(D)	$\text{Cu}_2\text{S} \longrightarrow \text{Cu}_2\text{O}$	(S)	Carbon reduction
		(T)	No change in oxidation number of metal

Integer value type :

10. Find the number(s) of ore of copper from the following

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|------------------|---------------|----------------|---------------|
| (a) Chalcopyrite | (b) Azurite | (c) Sphalerite | (d) Malachite |
| (e) Tincal | (f) Magnetite | (g) Fluospar | |



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1. (D) 2. (D) 3. (A) 4. (D) 5. (D) 6. (D) 7. (A,B,D)
8. (A) - R ; (B) - Q, T (C)- P, T ; (D) - S
9. (A) (P,S);(B) (Q,T);(C) (Q,R);(D) (Q,T)
10. (3)