DPP NO. 09
TOPIC : METALLURGY

1. Froth floatation process is used for the concentration of
(A) Oxide ores (B) Sulphide ores (C) Chloride Ores (D) Amalgam

2. The substance added in water in the froth floatation process is
(A) Olive oil (B) Pine oil (C) Coconut oil (D) None of the above

3. Iron ore is concentrated by
(A) Froth floatation (B) Electrolysis (C) Roasting (D) Magnetic separation

4. Bauxite ore is concentrated by
(A) Froth floatation (B) Electromagnetic separation
(C) Chemical treatment (D) Hydraulic separation

5. Froth-floatation method is successful in separating impurities from ores because
(A) The pure ore is denser than water containing additives like pine oil, cresylic acid etc.
(B) The pure ore is soluble in water containing additives like pine oil, cresylic acid etc.
(C) The impurities are soluble in water containing additives like pine oil, cresylic acid etc.
(D) The pure ore is not as easily wetted by water as by pine oil, cresylic acid etc.

6. Extraction of zinc from zinc blende is achieved by
(A) Electrolytic reduction
(B) Roasting followed by reduction with carbon
(C) Roasting followed by reduction with another metal
(D) Roasting followed by self-reduction

7. Heating of pyrites in air for oxidation of sulphur is called
(A) Roasting (B) Calcination (C) Smelting (D) Slagging

8. A substance which reacts with gangue to form fusible material is called
(A) Flux (B) Catalyst (C) Ore (D) Slag

9. When lime stone is heated strongly, it gives off CO_2. In metallurgy this process is known as
(A) Calcination (B) Roasting (C) Smelting (D) Ore dressing

10. The substance which is mixed with the ore for removal of impurities is termed as -
(A) Slag (B) Gangue (C) Flux (D) Catalyst

11. What are the three steps in extraction of a metal after its ore is mined ?

12. Write the chemical equations showing roasting and calcination of zinc ores ?

13. Mention the principles of concentration of ore for various methods ?

14. Four metals A, B, C & D are, in turn, added to the following solutions one by one. The observations made are tabulated below:

Metal	Iron (II) sulphate	Copper (II) sulphate	Zinc sulphate	Silver nitrate
A	No reaction	Displacement	–	–
B	Displacement	–	No reaction	–
C	No reaction	No reaction	No reaction	Displacement
D	No reaction	No reaction	No reaction	No reaction

Answer the following questions based on above information :

(i) Which is the most active metal and why ?

(ii) What would be observed if B is added to a solution of copper (II) sulphate and why ?

(iii) Arrange the metals A, B, C and D in order of increasing reactivity.

(iv) Container of which metal can be used to store both zinc sulphate solution and silver nitrate solution?

(v) Which of the above solutions can be easily stored in a container made up of any of these metals ?

15. Explain the methods used to extract the following

(i) Active metals (ii) Metals of medium reactivity

(iii) Metals of low reactivity (iv) Non-metals

Answers Key

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1.	B	**2.**	B	**3.**	D	**4.**	C	**5.**	D	**6.**	B	**7.**	A
8.	D	**9.**	C	**10.**	A								