

INORGANIC CHEMISTRY**LESSON-2****GENERAL INTRODUCTION TO METALLURGY****Time:2.30 min****Max mark:70****PART-I****I. Answer all the questions:****15x1=15**

- 1) The earthy impurities associate with ore is called _____
a) Gangue b) Mineral c) Ore d) Flux
- 2) Malachite is ore of _____
a) Oxide b) Sulphide c) Carbonate d) Haulide
- 3) Very pure metal is purified by _____
a) Froth floatation b) chemical method c) Calcination d) Smelting
- 4) Ore is converted into metal oxide by the process is _____
a) Roasting b) smelting c) Zone refining d) Reduction
- 5) As in Bessemerisation process the lining of silica brick is used and the process is known as _____
a) Acid Bessemer b) Basic Bessemer c) Neutral Bessemer d) Bessemerisation
- 6) The insoluble impurities either dissolve in the electrolyte (or) fall at the bottom and collect as _____
a) Anode mud b) Cathode mud c) Electrolyte mud d) Blister, Copper
- 7) Copper is refine to 99.98% pure copper by _____
a) Electrolytic refining b) Mond's process c) Zone refining d) Froth floatation
- 8) A highly pure metal is prepared by _____
a) Mond's process b) Zone refining c) Roasting d) Bessemerisation
- 9) Other name of carbonyl method is _____
a) Zone refining b) Electrolytic refining c) Thermal method d) Oxidation
- 10) The biggest source of metal is the earth crust and the process of taking out the ore from the earth crust is called _____
a) Mining b) Mineral c) Ore d) Flux

- 11) An example of halide ore _____
a) Zincite b) Dolomite c) Rock salt d) Felspar
- 12) Which type of ore is suitable for froth floatation process _____
a) Sulphide ore b) Carbonate ore c) Bauxite ore d) Silicate ore
- 13) An magnetic separation process impurities fall from the belt in a heap near the magnet and while non-magnetic concentrated ore is always from the magnet due to the influence of _____
a) Centrifugal force b) Centripetal force c) electrostatic force d) gravitational force
- 14) Which is noble metal _____
a) Neon b) Zinc c) Gold d) Aluminium
- 15) Formula of limonite _____
a) $ZnCO_3$ b) $CaCO_3$ c) $2Fe_2O_3 \cdot 3H_2O$ d) $MgCO_3$

PART-II

II. Answer any 6 questions Question number 21 is Compulsory 2 x 6 = 12

- 16) Mention the fact by the Mond's Process ?
- 17) What are the noble impurities are present in copper pyrite ore ?
- 18) Define anode mud ?
- 19) Write the different type of steel based on the carbon content ?
- 20) What is Smelting ?
- 22) Mention the composition of earth crust ?
- 21) Write any three halide ores with formula ?
- 23) What is meant by electrolytic refining ?
- 24) What are the major steps involved in metallurgy process ?

PART-III

III. Answer any 6 question no 30 is Compulsory 6x3=18

- 25) (i) Mention the source from sea (1)
(ii) Mention the noble metals (2)
- 26) Write a note on hydraulic washing . (3)
- 27) (i) Define Reduction ? (1)
(ii) Define oxidation with equation ? (2)
- 28) write the principle for zone refining process ? (3)
- 29) Mention anode, cathode and electrolyte by electrolytic refining of copper ? (3)
- 30) Mention the ore of Aluminium, Copper, Lead, Zinc, Magnesium, Iron with equation (3)

- 31) (i) What is you meant by slag ? (1)
(ii) Write example (2)
- 32) Distinguish between ore and mineral ? (3)
- 33) What are the different methods of concentration of ores ? (3)

PART-IV**III. Answer all the Questions:****5X5=25**

- 34) Write a short note on source of element in living system.
(or)
How will you separate magnetic impurities from non-magnetic impurities ?
- 35) Explain thermal decomposition process ?
(or)
Explain electrolytic refining of copper ?
- 36) Explain Bessemerisation ?
(or)
Explain Zone refining ?
- 37) Explain Chemical method ?
(or)
Explain froth Flootation ?
- 38) Write a short note on source of element from earth ?
(or)
Tabulate mass abundance of elements of earth crust, ocean and humans ?

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