

COLLEGE OF ENGINEERING, PUNE
(An autonomous institute of Government of Maharashtra)

END SEMESTER EXAMINATION
(MT302) - (Extractive Metallurgy)

/ MT-09002 .

Programme: T.Y.B.Tech (Metallurgy and Material Science) Year: 2014-15
Duration: 3 Hrs. Max. Marks: 60

23 NOV 2014 2 to 5 pm

Instructions:

1. All questions are compulsory.
 2. Neat Diagrams must be drawn wherever necessary.
 3. Start answer of each question on new page.
 4. Each question carries 6 marks
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Q.1	State the Newer routes used for extraction of Cu. Explain any one route in detail.
Q.2	What do you mean by low grade of Al ore? How is Al extracted from the same?
Q.3	How is Zn extracted by pyro and Hydro metallurgical technique?
Q.4	State the various ways by which Mg is extracted. Explain the process of extraction of Mg by Pyrometallurgical technique which is techno commercially used.
Q.5	Describe the process of extraction of Tin.
Q.6	Explain in detail extraction process of Ni.
Q.7	How is Al extracted by Newer route?
Q.8	Write short note on: 1. Ion Exchange process 2. Solvent Extraction process
Q.9	Write short note on : 1. Refining of Al 2. Extraction of Zr
Q.10	Average of 30T/Hr matte(% of Cu-29, Fe-38, S-28, Impurities-5) is charged in convertor at 1100°C . if the blast supplied is at an average rate of $52500\text{m}^3/\text{Hr}$. What is the efficiency of oxidation reactions?