

**College of Engineering, Pune**  
**End Semester Examination**  
**(MT 209) - (Geology and Ore Dressing)**  
**Semester – II**

**Year: S.Y.B-Tech**  
**Academic Year: 2011-12**  
**Duration: 3 Hours**

**Branch: Metallurgy**  
**Date: 14 May 2011**  
**Max Marks: 50**

**Instruction to candidates:**

1. All questions are compulsory.
  2. Marks given to the right side indicate full marks.
- 

Q.1. Write a detailed note on the INDIAN MINERAL POLICY with special reference to the metallic minerals like Copper and Iron. [10]

**OR**

Write a detailed note on the Conservation and Utilization of Industrial Minerals with the existing Indian scenario.

Q.2. Explain the process of formation of ores with at least two Examples from Maharashtra [10]

Q.3. a) Explain the terms – Throw, Set and Reduction ratio of the crusher. [5]

b) Differentiate between Rittinger's law and Stoke's Law. [5]

Q.4. What is the difference between classification and concentration? Explain the process of concentration in a Electrostatic separator and sorting in Jigging with the help of neat diagram. [10]

Q.5. a) Name the reagents which are used as a Depressors, Activators, and Conditioners with their roles in flotation. [6]

b) In a sink-and- float operation treating crude iron ore, the following results were obtained : [4]

Product	Tons	Assay, %Fe
Cone feed	146000	54 .0
Concentrate	106,000	58.0
Tailing	40,000	42.0

Calculate the Recovery and Ratio of Concentration.

\*\*\*\*\* The End \*\*\*\*\*