EGE 5391. Lab 5: Ore Geology

Unit- 1

Megascopic study and identification of ore minerals. Preparation and study of polished sections. Gravity, magnetic, seismic and electrical resistivity exploration problems.

Unit- 2

Preparation of litho logs using exploration data. Calculation of grade, tonnage and cut-off grade. Ore reserve estimation.

Unit- 3

Fundamentals of ore dressing: Crushing, grinding, sizing, concentration by washing, scrubbing, jigging, tabling, floatation. Magnetic and Electrostatic separation. Flow-charts of mineral separation.

References

- Arogyaswamy, R.N.P. (1980) Courses in Mining Geology, 2nd Ed., Oxford & IBH Pub. Co., New Delhi
- Banerjee (2001) Mineral Resources of India.
- Banerjee, P.K and Ghosh, S. (1997) Elements of Prospecting for Non-fuel Mineral Deposits, Allied Publishers Pvt Ltd, 320p.
- Kearey, P. and Brooks,M. (1991) An Introduction to geophysical Exploration, Blackwell scientific Publications, Musset, 272p.
- Mckinstry, H.E. (1947) Mining Geology, 1st Indian Ed., Asia Publishing House, New Delhi.
- Prasad, U (2002) Economic Mineral Deposits, CBS Publishers, New Delhi.
- Sinha, R.K and Sharma, N.L. (1970), Mineral Economics, New Delhi Oxford and IBH Pub.co., 317p.