

6th Semester

Under Ground Metal Mining

Module-I:

General Development of property level, crosscuts, raises and winzes, drifting and tunnelling, mining equipment and production machine used below ground. Provision of MMR 1961

Module - II:

Classification and choice of stoping methods, Methods of stoping: open stoping, supported stoping – breast, underhand and overhand stoping,

Module -III:

Shrinkage stoping, cut and fill stoping method, sub-level stoping

Module - IV:

Introduction to caving methods: top slicing, sub-level caving, block caving

Module - V:

Stope mechanization and level interval. Techno-economic analysis on choice of stoping methods, high productivity methods

Books:

- [1] Y. P. Chacharkar, **A study of Metalliferous Mining Methods**, Lovely prakshan Dhanbad, 1994
- [2] D. J. Deshmukh, **Elements of Mining Technology**, Vol - II, Central Techno Publications, Nagpur, 2001
- [3] B. C. Arthur, **SME Mining Engineers Hand Book**, American Institute of Mining, Metallurgical and Petroleum Engineers New York, 1973.
- [4] K. S. Stout, **Mining Methods and Equipment**, McGraw hill New York, 1980