

SEMESTER - I

PAPER- IV (Code: Geol 04) : MINERAL TECHNOLOGY AND MINERAL ECONOMICS

Time: 3 hrs

MM 100

UNIT – I

Principles of ore dressing. Comminution-breaking, crushing and grinding. Principles and methods of screening and classification. Filtration. Methods of Concentration - Hand sorting, Washing, Gravity concentration, Heavy media separation, Flotation, Magnetic, Electrostatic and other methods. Study of mineral dressing processes of important ores and Industrial minerals in India.

UNIT - II

Non-Metallic minerals: State-wise distribution of the resources, production, exports and imports, industrial uses and specifications of the important non- metallic minerals of India and their world scenario.

UNIT – III

Metallic minerals: State-wise distribution of the resources, production, consumption and uses, exports and imports of the important metallic minerals of India and their world scenario.

UNIT – IV

Energy and fuel minerals: State-wise distribution, production, consumption, exports and imports of the important energy and fuel minerals of India and their world scenario.

UNIT –V

Peculiarities of mineral deposits. Conservation and substitution of minerals. Mineral concession rules of India. National mineral policy. Mineral policy of Rajasthan: Granite and Marble policy. Strategic, critical and essential minerals.