

PMI5I101 COAL PREPARATION (3-1)
(Professional Core Paper)

Module I (08 Hours)

Coal characteristics, Necessity, scope and application of coal preparation, washability characteristics of coal, effect of mining methods on size, quality and washability.

Module II (08 Hours)

Crushing of coal: Various types of coal size reduction process and their significance. Screening of coal: Classification of coal using various screens and their efficiency.

Module III (10 Hours)

Coarse coal cleaning: Jigs, heavy media baths and heavy media cyclones. Use of Spirals and tables for coal processing. Performance analysis of different coal cleaning unit operations (Partition curves, misplacement, Meyers curve) and their merits and demerits.

Module IV (10 Hours)

Fine coal cleaning: Challenges in fine coal cleaning, Froth-Flotation, water-only cyclone, Vorsyl separators, oil – agglomeration. Product disposal and miscellaneous methods, coal preparation economics, coal preparation flowsheets, modern developments.