

PMI4I104 ADVANCED FLUID MECHANICS (3-0-0)

Module I(8Hours)

Movement of solids in fluids, suspension & their behavior, slurry rheology.

Module II(14Hours)

Centrifugal pumps-various types, design&efficiency, evaluation criterion,
Slurry & Dredge pumps- various types, design&efficiency, evaluation criterion,
Slurry Flow through pipelines-concept of critical velocity, roughnessfactor,
moody'sdiagram, pipediameter& capacity correlation.

Module III(14Hours)

Pump & pipeline design-short distance & long distance slurry pipelines, practical issues.
Feed solid preparation & effects of feed solid quality variation on transport efficiency.

Module IV

Dewatering of slurry at the discharge end.
Recycling of process water & pipeline design.
Numerical Problems in All Modules.