SARDAR PATEL UNIVERSITY
Programme & Subject: M.Sc (Mathematics)
Semester: IV
Syllabus with Effect from: November-2013

Paper Code: PS04EMTH16	**Total Credit: 4**
Title Of Paper: Fluid Dynamics - II	

Unit	Description in detail	Weighting (%)
I	Two-dimensional motion: steam function, velocity potential, complex potential, indirect approach, inverse function.	25%
II	Source, Doublet, vortex, mixed flow, rankine technique, method of images.	25%
III	Conformal transformation, the aerofoil, potential field mapping.	25%
IV	Motion in three dimensions: Laplace's equation, axial distribution of sources and doublets, slender bodies of revolution. Motion regarded as due to sources and doublets, alternative representation.	25%

Basic Text & Reference Books:-

- N. Curle and H.J.Davies, Modern fluid dynamics, Vol. 1., D.Van Nostrand company Ltd.
- Frank Chorlton, Text Book of fluid Dynamics, Cambridge.