



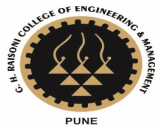
Course wise Teaching Plan for Session : Summer 2019

Course : FLUID MACHINERY

Faculty : abdulhai.pathan@raisoni.net - ABDUL HAI KHAN MOHMMED MUSTAFA

KHAN PATHAN

Unit	Topic Code	Topic Covered	Date	Course	Section
1	1	Unit I: INTRODUCTION TO FLUID MACHINES & IMPULSE HYDRAULIC TURBINES: Impulse momentum principle and its applications, Force exerted on fixed plate,	03/12/2018	BMEL209	A
1	2	Force exerted moving flat plate and curved vanes, series of plates,	05/12/2018	BMEL209	A
1	3	Velocity triangles and their analysis, work done equations, efficiency.	06/12/2018	BMEL209	A
1	4	Numericals	10/12/2018	BMEL209	A
1	5	Pelton wheel- construction, principle of working,	11/12/2018	BMEL209	A
1	6	Velocity diagrams and analysis, design aspects,	12/12/2018	BMEL209	A
1	7	Numericals	13/12/2018	BMEL209	A
1	8	Governing and performance characteristics, specific speed, selection of turbines, multi-jet.	14/12/2018	BMEL209	A
2	9	Unit II: REACTION WATER TURBINES: Classifications , Francis, Propeller, Kaplan Turbines, construction features	17/12/2018	BMEL209	A
2	10	Velocity diagrams and analysis, DOR,	18/12/2018	BMEL209	A
2	11	Numericals	19/12/2018	BMEL209	A
2	12	Draft tubes- types and analysis, cavitation causes and remedies, specific speed, performance characteristics and governing of reaction turbines, selection of turbines.	20/12/2018	BMEL209	A
2	13	Numericals	24/12/2018	BMEL209	A
2	14	Specific speed, performance characteristics and governing of reaction turbines,	01/01/2019	BMEL209	A
2	15	Numericals	02/01/2019	BMEL209	A
2	16	Selection of turbines.	03/01/2019	BMEL209	A
3	17	Unit III: PUMPS: Classification of rotodynamic pumps, components of centrifugal pump, types of heads	07/01/2019	BMEL209	A



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3	18	Velocity triangles and their analysis, effect of outlet blade angle,	08/01/2019	BMEL209	A
3	19	Cavitation, NPSH, Thoma's cavitation factor, priming of pumps, installation, specific speed, performance characteristics of centrifugal pump,	09/01/2019	BMEL209	A
3	20	Series and parallel operation of pumps, system resistance curve, selection of pumps and numerical.	14/01/2019	BMEL209	A
3	21	Reciprocating pumps: Types, Component and Working of Reciprocating pump,	15/01/2019	BMEL209	A
3	22	Discharge, Work done and power required to drive for single acting and double acting, Coefficient of discharge,	16/01/2019	BMEL209	A
3	23	Slip, Effect of acceleration of piston on velocity and pressure, indicator diagram, Air Vessel and numericals.	17/01/2019	BMEL209	A
4	24	Unit IV: COMPRESSIBLE FLOW: Perfect gas relationship	21/01/2019	BMEL209	A
4	25	Speed of sound wave, mach number, .	22/01/2019	BMEL209	A
4	26	Numericals	23/01/2019	BMEL209	A
4	27	Isothermal and isotropic flows,	24/01/2019	BMEL209	A
4	28	Numericals	28/01/2019	BMEL209	A
4	29	Shock waves, fanno and Rayleigh lines	29/01/2019	BMEL209	A
4	30	Numericals	30/01/2019	BMEL209	A
5	31	Unit V: HYDROSTATIC AND HYDROKINETIC SYSTEMS: Hydrostatic systems, their function,	31/01/2019	BMEL209	A
5	32	Components and application such as Hydraulic press	04/02/2019	BMEL209	A
5	33	Lift and crane	05/02/2019	BMEL209	A
5	34	Fluid drive for machine tools.	06/02/2019	BMEL209	A
5	35	Intensifier and accumulator.	07/02/2019	BMEL209	A



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5	36	Hydrokinetic systems: Fluid couplings	11/02/2019	BMEL209	A
5	37	Torque converter	12/02/2019	BMEL209	A
5	38	Revision	13/02/2019	BMEL209	A
6	39	Unit VI: EXPERIMENTAL TESTING AND MODELLING: Model Testing: application to hydraulic turbines	14/02/2019	BMEL209	A
6	40	Hydrodynamic pumps.	25/02/2019	BMEL209	A
6	41	Water Lifting devices,	26/02/2019	BMEL209	A
6	42	Numericals	27/02/2019	BMEL209	A
6	43	Numericals	28/02/2019	BMEL209	A
6	44	Incomplete similarities,	05/03/2019	BMEL209	A
6	45	Wind tunnel testing, and	06/03/2019	BMEL209	A
6	46	Flow with free surfaces.	07/03/2019	BMEL209	A
6	47	Revision of Unit I	14/03/2019	BMEL209	A
1	48	Revision of Unit II	18/03/2019	BMEL209	A
1	49	Revision of Unit III	19/03/2019	BMEL209	A
2	50	Revision of Unit IV	20/03/2019	BMEL209	A
2	51	Revision of Unit V	28/03/2019	BMEL209	A