Lesson Plan

Subject: **FM** (Th -3)   Name of faculty: SANGRAM BISWAL

Semester: 4TH   Class allotted: 4p/week   Branch: Mechanical   Session: 2024(S)
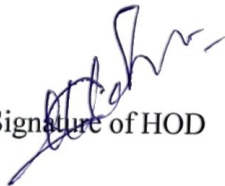
Discipline	Semester	From date:	To date:	Teaching Aid
Subject:	No. of days/ per week	Theory/ Practical –Topics/Lesson		
Week	Date/Period			
1	16/01/2024 TO 20/01/2024	**Properties of Fluid** Define fluid Description of fluid properties like Density, Specific weight, specific gravity, specific volume Definitions and Units of Dynamic viscosity, kinematic viscosity		White Board Marker Smart board
2	22/01/2024 TO 27/01/2024	surface tension Capillary phenomenon solve simple problems. solve simple problems. solve simple problems.		White Board Marker Smart board
3	29/02/2024 TO 03/02/2024	Definitions and units of fluid pressure, pressure intensity and pressure head. Statement of Pascal's Law. Concept of atmospheric pressure, gauge pressure, vacuum pressure and absolute pressure Pressure measuring instruments Manometers (Simple and Differential)		White Board Marker Smart board
4	05/02/2024 TO 10/02/2024	Bourdon tube pressure gauge solve simple problems solve simple problems solve simple problems		White Board Marker Smart board

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Week	Date/Period	Theory/ Practical –Topics/Lesson	Teaching Aid
5	12/02/2024 TO 17/02/2024	Definition of hydrostatic pressure Total pressure and centre of pressure on immersed bodies(Horizontal and Vertical Bodies) Archimedes 'principle, concept of buoyancy, meta center and meta centric height (Definition only) Concept of floatation	White Board Marker Smart board
6	19/02/2024 TO 24/02/2024	solve simple problems. solve simple problems solve simple problems solve simple problems.	White Board Marker Smart board
7	26/02/2024 TO 02/03/2024	Types of fluid flow Continuity equation(Statement and proof for one dimensional flow) Bernoulli's theorem(Statement and proof Applications and limitations of Bernoulli's theorem (Venturimeter, pitot tube)	Marker White Board
8	04/03/2024 TO 09/03/2024	solve simple problems solve simple problems solve simple problems solve simple problems	White Board Marker Smart board
9	11/03/2024 TO 16/03/2024	Define orifice Flow through orifice Orifices coefficient & the relation between the orifice coefficients. Classifications of notches & weirs	White Board Marker Smart board
10	18/03/2024 TO 23/03/2024	Discharge over a rectangular notch or weir. Discharge over a triangular notch or weir Numerical problem Numerical problem	Marker White Board Smart board

11	27/03/2024 TO 30/03/2024	Numerical problem Definition of pipe. Loss of energy in pipes. Head loss due to friction: Darcy's and Chezy's formula (Expression only)	White Board Marker Smart board
12	02/04/2024 TO 06/04/2024	Hydraulic gradient and total gradient line Numerical problem Numerical problem Numerical problem	Marker White Board Smart board
13.	08/04/2024 TO 13/04/2024	Numerical problem Numerical problem Numerical problem . Impact of jet on fixed and moving vertical flat plates	White Board Marker Smart board
14	15/04/2024 TO 20/04/2024	Derivation of work done on series of vanes and condition for maximum efficiency. Impact of jet on moving curved vanes, illustration using velocity triangles, derivation of work done, efficiency. Numerical problem	White Board Marker Smart board
15	22/ 04/2024 TO 26/04/2024	Numerical problem Numerical problem Revisio Revision	White Board Marker Smart board

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