Dynamics of Machinery (DOM) (Sem-5-TEM)

(Academic year 2022 – 2023)

Theory Lesson plan

Month /	Date	Lec.	Module	Proposed plan	Number of
Week July 2022, 4 th week	19/07/22	No.	1.1	Introduction to governor, flywheel; types and terminologies of watt governor	hours 1
	21/07/22	2	1.1	Difference between governor and flywheel; derivation of porter governor; effect of friction; numerical on porter only question	1
July 2022, 5 th week	25/07/22	3	1.1	2 numerical solved on porter governor	1
August 2022, 1 th week	01/08/22	4	1.1	Working of Hartnell and derivation of various formula; animation of working of porter and Hartnell governor	1
	02/08/22	5	1.1	2 Numerical on Hartnell governor	1
	03/08/22	6	1.1	Performance characteristics of governor; Effort and power of governor; controlling force	1
August 2022, 2 nd week	08/08/22	7, 8	1.2	Gyroscopic couple and its derivation; Effect of gyroscopic couple on aeroplane	2
	10/08/22	9	1.2	Effect of gyroscopic couple on ship	1
	12/08/22	10	1.2	Pitching of ship and its derivation; numerical	1
August 2022, 3 rd week	17/08/22	11, 12	1.2	Rolling of ship and 2 numericals; Gyroscopic effect on four wheeler vehicle	2
August 2022, 4 th week	22/08/22	13, 14, 15	2.2 , 2.1	Basic concept of rigid body, inertia force & torque, D'Alembert principle; 3 methods of radius gyration; static and dynamic force analysis of slider crank mechanism	3

Practical plan

Expt no.	Title of Expt
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1	Porter governor			
2	Hartnell governor			
3	Gyroscope			