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DEPARTMENT OF MECHANICAL ENGINEERING

B. TECH. 5TH SEMESTER

LEARNING MANAGMENT SYSTEM (LMS)

S. N.	NAME OF SUBJECT	CO'S	NOTES LINK
1	HEAT TRANSFER (BTMC501)	CO-1: Understand the different modes of heat transfer and calculation of thermal resistance and heat transfer through plane and composite wall, cylinder and sphere with and without thermal contact resistances.	VIEW
		CO-2: Understand the concept of internal heat generation for the calculation of heat transfer for plane wall, cylinder and sphere and also learn about various types of fins and their significance in steady state conduction heat transfer calculations. It will also help them to understand the concept of unsteady state heat transfer	VIEW
		CO-3: Apply appropriate empirical correlations to estimate forced convection and free convection heat transfer, for internal and external flows.	VIEW
		CO-4: Evaluate heat exchanger performance for the given geometry and boundary conditions and design suitable heat exchanger geometry to deliver a desired heat transfer rate.	VIEW
		CO-5: Evaluate heat transfer rate by radiation from ideal and actual surfaces and enclosures of different geometries.	VIEW
2	MACHINE DESIGN-I (BTMC502)	CO-1: Evaluate the problem by identifying customer need and convert into design specification.	VIEW
		CO-2: Understand component behavior subjected to load and identify failure criteria and Apply principals of static loading for design of Cotter joint, Knuckle joint.	VIEW
		CO-3: Analyze the stress and strain induced in the various components for finite and infinite life when subjected to fluctuating load.	VIEW

		CO-4: Evaluate & create the power transmission shaft key & coupling.	VIEW
		CO-5: Evaluate & create threaded joint like bolted, welded joints, power screws and springs.	VIEW
3	THEORY OF MACHINE-II (BTMC503)	CO-1: Understand the select type of belt and rope drive for a particular application.	VIEW
		CO-2: Evaluate gear tooth geometry and select appropriate gears.	VIEW
		CO-3: Understand Geometry of gear, its types, analysis of forces and motions of gear teeth. Study of gear trains	VIEW
		CO-4: Understand the basic principles to interpret their application and examine near to life problems due gyroscopic effects and determine the conditions for stability of ships, airplanes and automobile. Characterize flywheels as per engine requirement, Define governor and select/suggest an appropriate governor	VIEW
		CO-5: Understand the concept of vibration in various mechanical systems and distinguish vibration characteristics for 1 & 2 DOF systems to evaluate the conditions for its control/ use.	VIEW
4	AUTOMOBILE ENGINEERING (BTAPE504D)	CO-1: Understand the different parts of the automobile.	VIEW
		CO-2: Understand the working of functions of front axle and steering system.	VIEW
		CO-3: Apply various types of Electronic stability program system and its operation.	VIEW
		CO-4: Apply the basic requirements of wheels and tyres.	VIEW
		CO-5: Apply various types electrical system & apply vehicle troubleshooting and maintenance procedures.	VIEW
5	SOLAR ENERGY (BTMOE505A)	CO-1: Understand measurement of direct, diffuse and global solar radiations falling on horizontal and inclined surfaces.	VIEW
		CO-2: Analyze the performance of flat plate collector, air heater and concentrating type collector	VIEW
		CO-3: Understand test procedures and apply these while testing different types of collectors	VIEW

		CO-4: Analyze various types of thermal energy storage systems.	VIEW
		CO-5: Understand solar water heating system for a few domestic and commercial applications	VIEW