VI SEM Course Outcomes	
Subject: Finite Element Methods	**Code: 15ME61**
CO1	Discuss the terminologies and fundamental concepts associated with Finite Element Method
CO2	Solve the problems by using variational and weighted residual formulations.
CO3	Formulate for the shape functions for various types of elements
CO4	Formulate stiffness matrices and load vector for various types of 1D and 2D problems and calculate stress and strains.
CO5	Apply the Finite element method to solve heat transfer and fluid flow problems
Subject: Computer Integrated Manufacturing	**Code: 15ME62**
CO1:	Demonstrate the concepts of machines, mechanisms and related terminologies. Determine the mobility (number of degrees-of-freedom) and enumerate rigid links and types of joints within mechanisms.
CO2:	Analyze the velocity and acceleration of mechanisms using analytical and graphical methods.
CO3:	Illustrate the gear mechanism classification and associated concepts.
CO4:	Summarize the importance gear trains and relate to their practical applications.
CO5:	Understand various cam and follower mechanism, their classification and cam profiles based on the prescribed follower motion.
Subject: Heat and Mass Transfer	**Code: 15ME63**
CO1	Define basic laws of heat transfer and apply the modes of heat transfer to formulate and solve steady state conduction heat transfer problems.
CO2	Solve the heat transfer problems involving critical thickness of insulation, variable thermal conductivity and fins.
CO3	Analyze transient heat transfer problems for finite, semi-infinite and infinite solids.
CO4	Explain boundary layer concept and solve free convection heat transfer problems.
CO5	Apply the dimensional analysis to solve forced convection heat transfer problems and analyze radiation heat transfer problems.
CO6	Apply the heat transfer basics to solveheat exchanger problems and explain the concept of condensation and boiling of liquids.
Subject: Design of machine Elements-11	**Code: 15ME64**
CO1	Analyse the bending stress variation in different applications of curved beams.
CO2	Determine the pressure variation in thick cylinders due to internal, external and contact Pressures.
CO3	Design flexible machine elements like belt, rope and chain drives and power transmission devices like clutches and bakes.
CO4	Classify and design springs for different applications.

CO5	Apply the principles of lubrication in design of journal and anti friction bearings.
CO6	Classify and design the gears for dynamic and wear loads.
Subject:Automotive Engineering	**Code: 15ME655**
CO1	To identify the different parts of an automobile and it's working.
CO2	To understand the working of transmission and braking systems
CO3	Interpret the model and apply the results to resolve critical issues in a real world environment.
CO4	To learn various types of fuels and injection systems
CO5	To know the cause of automobile emissions ,its effects on environment and methods to
Subject:Industrial Safety	**Code: 15ME662**
CO1	Understand the basic safety terms
CO2	Identify the hazards around the work environment and industries.
CO3	Use the safe measures while performing work in and around the work area of the available laboratories
CO4	Able to recognize the sign boards and its application.
CO5	Able to demonstrate the portable extinguishers used for different class of fires.
CO6	Able to understand and report the case studies from various references