GALGOTIAS UNIVERSITY

ADMISSION NUMBER												

School of Engineering

B.TECH Mechanical Engineering in E-Vehicles and Autonomous Vehicles
Mid Term Examination - Nov 2023

Duration : 90 Minutes
Max Marks : 50

Sem V - G3UC501B - Fundamental of EV and HEV

General Instructions
Answer to the specific question asked
Draw neat, labelled diagrams wherever necessary
Approved data hand books are allowed subject to verification by the Invigilator

1)	Compare EVs and HEVs differ in terms of their powertrain architectures?	K2	(2)
2)	List the charging techniques and infrastructure used for EVs and HEVs.	K1	(3)
3)	Outline the battery management system (BMS) contribution to the efficient energy storage?	K2	(4)
4)	Explain the significance of electric vehicle charging infrastructure and grid integration	K2	(6)
5)	Make use of battery management systems to optimize the performance and lifespan of EV batteries	K3	(6)
6)	Construct a diagram illustrating the different powertrain architectures in electric and hybrid vehicles	K3	(9)
7)	Categorize different charging techniques and infrastructure used for electric vehicles and hybrid electric vehicles	K4	(8)
8)	Distinguish between the reliability and durability of different thermal management systems in EVs and HEVs.	K4	(12)
	OR		
	Discover the emerging trends and advancements in EV and HEV technology that have influenced the development of hybrid systems	K4	(12)