Register No : _____

THE KAVERY ENGINEERING COLLEGE

(An Autonomous Institution)

UG/PG DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL/MAY 2026

Fifth Semester

Mechanical Engineering

CME380 - AUTOMOBILE ENGINEERING

Regulations - 2021

Duration : 3 Hrs *Maximum : 100 Marks*

*PART – A (ANSWER ALL QUESTIONS) (Marks 10*2=20)*

Q.No	*Questions*	*BTL*	*CO*	*Marks*
1.	How automobile is classified on the basis of type of wheel drive?	L1	1	2
2.	What are the main components of IC engine?	L1	1	2
3.	Outline the requirements of air fuel ratio in SI engine.	L2	2	2
4.	Recall the types of electronically controlled diesel injection system.	L1	2	2
5.	Classify the types of clutch.	L2	3	2
6.	Compare fluid coupling and torque converter.	L2	3	2
7.	List the types of suspension systems.	L1	4	2
8.	What is Ackermann steering principle?	L1	4	2
9.	Summarize the various methods of storing hydrogen.	L2	5	2
10.	Infer the various constituents for natural gas.	L2	5	2

*PART – B (ANSWER ALL QUESTIONS) (Marks 5*16 = 80)*

Q.No			*Questions*	*BLT*	*CO*	*Marks*
11.	a		Sketch and explain different types of lubrication systems used in automotive engines.	L2	1	16
			Or			
	b	i	Explain the construction & components of an automobile chassis with neat diagrams.	L2	1	10
		ii	What are the functions of a cooling system?	L2	1	6
12.	a	i	Explain the suitable sketch the working of a transistorized coil Ignition (TCI) system. What are the advantages and disadvantages of the TCI system?	L2	2	16
			Or			
	b	i	Describe the operation of turbocharger with neat sketch.	L3	2	8
		ii	Discuss the engine emissions controller system.	L3	2	8

13.	a		With the help of a neat sketch, explain the construction and operation of a sliding mesh gearbox.	L2	3	16
			Or			
	b		Explain the working of a single plate clutch with a neat diagram.	L2	3	16
14.	a		Sketch and explain various steering geometries.	L2	4	16
			Or			
	b	i	Examine the suspension system with neat sketches.	L4	4	8
		ii	Evaluate the construction and operation of hydraulic braking system with neat sketch.	L4	4	8
15.	a		Analyze short notes about Hybrid vehicle and write its principle and mention the main components of a hybrid transmission.	L4	5	16
			Or			
	b		Contrast the construction and working principle of Fuel cells, with simple sketches.	L4	5	16