

Register No : _____

THE KAVERY ENGINEERING COLLEGE
(An Autonomous Institution)

B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, NOV /DEC 2024

Fifth Semester

Mechanical Engineering

CME380-Automobile Engineering

Regulations - 2021

Duration : 3 Hrs

Maximum : 100 Marks

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

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
1.	List out the different types of vehicle body.	RE	1	2
2.	What are the major functions of crank shaft in IC engine?	RE	1	2
3.	Distinguish between SI and CI engine.	AN	2	2
4.	What is a turbocharger?	RE	2	2
5.	Classify different types of clutches. What type of clutch is used in bikes?	UN	3	2
6.	Compare a live axle and dead axle.	UN	3	2
7.	What is the purpose of suspension in an automobile?	RE	4	2
8.	What do you mean by ABS?	RE	4	2
9.	Give the advantage of CNG fuel.	UN	5	2
10.	Write a short note on hybrid vehicle.	RE	5	2

PART - B (ANSWER ALL QUESTIONS) (Marks 5*13 = 65)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
11.	a Explain about the various aerodynamics forces and its influenced moments acting on a fast-moving passenger car.	UN	1	13
	Or			
	b Write down the different components present in IC engine and briefly explain the function of any two in detail.	UN	1	13
12.	a Explain with a suitable sketch the working of a CRDI in diesel engine.	UN	2	13
	Or			
	b i Discuss the Euro and BIS emission norms.	UN	2	9
	ii Write shorts notes on BS.	UN	2	4
13.	a Explain the construction and working of a steering gear box with the help of a neat sketch.	UN	3	13
	Or			
	b Explain the working of a differential mechanism with a neat sketch.	UN	3	13

14.	a	Explain the working of a hydraulic braking system with the help of a neat sketch.	UN	4	13
		Or			
	b	Explain the need and functioning of ABS with the help of a neat sketch.	UN	4	13
15.	a	What is the need of alternate fuel and give the advantage of using hydrogen as an alternative fuel.	UN	5	13
		Or			
	b	Explain the working of an electric vehicle with the help of a neat sketch.	UN	5	13

*PART – C (Marks 1*15 = 15)*

<i>Q.No</i>		<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
16.	a	Classify the different types of automobile bodies and explain their function.	UN	1	15
		Or			
	b	Explain in detail, i. Hotchkiss drive (7) ii. Torque tube drive (8)	UN	3	15