

CBCS SCHEME - Make-Up Exam

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BAU602

Sixth Semester B.E/B.Tech. Degree Examination, June/July 2025 Vehicle Body Engineering and Safety

Time: 3 hrs.

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

Module – 1			M	L	C
1	a.	Briefly explain the layout of commercial vehicles.	10	L2	CO1
	b.	With a neat sketch, explain layout of the bus and coach bodies.	10	L2	CO1
OR					
2	a.	List out the types of car bodies with the neat sketches.	10	L3	CO1
	b.	Briefly explain in detail Semi Integral and Integral method of construction of a vehicle body.	10	L2	CO1
Module – 2					
3	a.	Briefly explain the use of timbers and glasses in vehicle body construction.	10	L2	CO2
	b.	Discuss the different types of plastics used in vehicle body construction. Explain the properties.	10	L3	CO2
OR					
4	a.	List out the salient features of composites and discuss.	10	L3	CO2
	b.	With a neat block diagram, explain the process of painting.	10	L2	CO2
Module – 3					
5	a.	With a suitable sketch, explain Aerodynamics forces and moment acting on vehicle body.	10	L2	CO3
	b.	Briefly explain the wind tunnel with a neat sketch to determine the drag co-efficient of a vehicle.	10	L2	CO3
OR					
6	a.	Explain in details different loads acting on vehicle body structure.	10	L2	CO3
	b.	Briefly explain the vehicle weight distribution.	10	L2	CO3

Module – 4					
7	a.	Sketch and explain the driver's seat position for commercial vehicle.	10	L2	CO4
	b.	Briefly explain the interior ergonomics for Automotive vehicle.	10	L3	CO4
OR					
8	a.	Explain briefly longitudinal and lateral stability of a vehicle with a sketch.	10	L2	CO4
	b.	Briefly explain steering geometry of the car.	10	L2	CO4
Module – 5					
9	a.	List out the methods used for controlling the noise and vibration in vehicle. Explain.	10	L2	CO5
	b.	Briefly explain the various sources of noise in a vehicle.	10	L2	CO5
OR					
10	a.	Briefly explain the safety aspects of a bumper design and also explain the different types of bumper.	10	L2	CO5
	b.	Explain briefly in detail Side Impact analysis.	10	L2	CO5
