

Model Question Paper-1 with effect from 2022-23 (CBCS Scheme)

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Sixth Semester B.E. Degree Examination Vehicle Body Engineering and Safety (BAU602)

TIME: 03 Hours

Max. Marks: 100

Note: 01. Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.

Module -1			*Bloom's Taxonomy Level	Marks
Q.01	a	Discuss the layout of coaches with relevant figures.	L3	10
	b	Describe any five styles of car bodies with suitable figure.	L2	10
OR				
Q.02	a	Illustrate with a neat sketch the layout of truck bodies.	L3	10
	b	Discuss the types of construction of vehicle bodies.	L2	10
Module-2				
Q.03	a	What are the types of plastics used in vehicle body manufacturing?	L2	07
	b	Describe the use of textiles used in body manufacturing.	L1	07
	c	With the help of case study explain the use of Natural Fiber Composites used in vehicle body manufacturing.	L2	06
OR				
Q.04	a	Discuss the importance of laminated glass in the vehicle body manufacturing.	L2	07
	b	Describe the use of rubber in fabrication of vehicle body.	L1	07
	c	Illustrate the importance of metal matrix composites used in vehicle body manufacturing.	L2	06
Module-3				
Q.05	a	Discuss the construction and working of wind tunnel with suitable figure	L3	10
	b	With help of neat sketch analyse the various drag forces experienced in the vehicle	L4	10
OR				
Q.06	a	Describe the various types of forces and moments encountered in vehicle aerodynamics	L3	10
	b	Discuss the stress analysis of a bus body structure under bending and torsion	L4	10
Module-4				
Q.07	a	Discuss the various methods of improving visibility	L2	10
	b	Explain the commercial vehicle cabin ergonomics with suitable figure	L3	10
OR				
Q.08	a	Explain the mass distribution and engine location on vehicle stability	L2	10
	b	Discuss the driver's seat dimensions with suitable figure	L1	10
Module-5				
Q.09	a	Describe the various methods of noise suppression	L2	10
	b	Illustrate the various sources of noise in vehicle body	L3	10
OR				
Q.10	a	Discuss the various laws of mechanisms applied to safety	L2	10
	b	Explain the different passive restraint systems in vehicle impact	L3	10

*Bloom's Taxonomy Level: Indicate as L1, L2, L3, L4, etc. It is also desirable to indicate the COs and POs to be attained by every bit of questions.

Model Question Paper-2 with effect from 2022-23 (CBCS Scheme)

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Sixth Semester B.E. Degree Examination
Vehicle Body Engineering and Safety (BAU602)

TIME: 03
Hours

Max. Marks: 100

Note: 01. Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.

Module -1			*Bloom's Taxonomy Level	COs	Marks
Q.01	a	Explain the different types of bus body and coaches	L2	CO1	10
	b	Classify the types of car bodies and explain briefly.	L3	CO1	10
Module-2					
Q.02	a	Draw the car body and explain the car body terminology	L3	CO1	10
	b	Explain the types of commercial vehicle body.	L2	CO1	10
Module-2					
Q. 03	a	Briefly explain the Aluminum and alloy steel for car body.	L2	CO2	10
	b	Discuss the different types of body based on construction.	L3	CO2	10
OR					
Q.04	a	Describe briefly the Semi rigid PUR foams and sandwich panels.	L2	CO2	10
	b	With a neat sketch, explain the painting process.	L2	CO2	10
Module-3					
Q. 05	a	With a neat sketch, explain the aerodynamics moments.	L2	CO3	10
	b	Briefly explain the wind tunnel.	L3	CO3	10
OR					
Q. 06	a	With a neat sketch, different loads acting on vehicle structure.	L2	CO3	10
	b	Briefly explain the vehicle weight distribution.	L2	CO3	10
Module-4					
Q. 07	a	Discuss about the interior ergonomics of driver's seat position.	L3	CO4	10
	b	With a neat sketch, seat dimension of commercial vehicle driver seat.	L2	CO4	10
OR					
Q. 08	a	Briefly explain the longitudinal and lateral stability of a car.	L2	CO4	10
	b	With a neat sketch, explain the steering geometry.	L2	CO4	10
Module-5					
Q. 09	a	Discuss about various sources of noise in a vehicles	L3	CO5	10
	b	List out the controlling of noise and vibration	L2	CO5	10
OR					
Q. 10	a	Classify the different type of bumpers used in vehicle and its use.	L3	CO5	10
	b	Write the side impact analysis of a vehicle.	L2	CO5	10

*Bloom's Taxonomy Level: Indicate as L1, L2, L3, L4, etc. It is also desirable to indicate the COs and POs to be attained by every bit of questions.