

6th Semester	RAU6C002	Vehicle Body Engineering	L-T-P 3-0-0	3 Credits
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MODULE – I

(09 Hours)

Car body details

Types: saloon, convertibles, limousine, estate van, racing and sports car. Visibility: regulations, driver's visibility, tests for visibility – methods of improving visibility. Safety: safety design, safety equipment's for car. Various body panels and construction of car body.

MODULE II

(09 Hours)

Bus body details

Types: mini bus, single decker, double decker, two level, split level and articulated bus.

Bus body lay out – floor height – engine location – entrance and exit location.

Constructional details: types of metal sections used – regulations – conventional and integral type construction.

MODULE III

(09 Hours)

Vehicle aerodynamics

Objectives – vehicle drag and types – various types of forces and moments – effects of forces and moments – side wind effects on forces and moments – various body optimization techniques for minimum drag.

MODULE IV

Commercial vehicle details

(09 Hours)

Types of body – flat platform, drop side, fixed side, tipper body, tanker body. Light commercial vehicle body types. Dimensions of driver's seat in relation to controls – drivers cab design.

Body materials, trim and mechanisms

Steel sheet, timber, plastics, grp, properties of materials. Corrosion – anticorrosion methods – selection of paint and painting process. Body trim items – body mechanisms.

Books :

1. Powloski.J., Vehicle Body Engineering, Business Books Ltd., 1989.
2. Giles J.C., Body Construction and Design, Life Books Butterworth & Co., 1971.
3. John Fenton, Vehicle Body Layout and Analysis, Mechanical Engg. Publication Ltd., London, 1982.
4. Braithwaite. J.B., Vehicle Body Building and Drawing, Heinemann Educational Books Ltd., London, 1977.