

No. of Printed Pages : 03

Roll No.

E-196

B. Tech. EXAMINATION, Dec. 2018

(Fifth Semester)

(B. Scheme) (Main & Re-appear)

(AE)

AE311B

VEHICLE BODY ENGINEERING

Time : 3 Hours]

[Maximum Marks : 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

(2-09/13) M-E-196

P.T.O.

Unit I

1. What are the visibility regulations in the vehicle body engineering and what are the various test used for visibility and methods of improving visibility and space in cars. **15**
2. What is the need for safety in the modern vehicles and what are the safety design parameters ? Explain the various safety equipments used in the modern vehicles. **15**

Unit II

3. What is the need of making the stream lined and aerodynamic geometry of the modern vehicle ? What are the various types of vehicles drag and their classifications and method to minimize various drags ? **15**
4. What do you mean by wind tunnel testing of the vehicle and explain the flow visualization techniques used in the model testing. **15**

M-E-196

2

Unit III

5. Explain with a neat sketch different types of bus bodies : **15**
 - (i) Mini Bus
 - (ii) Single decker Bus
 - (iii) Double decker Bus.
6. What do you mean by bus body layout ? Explain with a neat sketch of bus body layout indicating floor height, engine location, entrance and exit location, scating dimensions. **15**

Unit IV

7. What are the various types of commercial vehicle used nowadays ? Discuss all such types of vehicles that comes under the category of commercial vehicle. **15**
8. What are the various types of material used for different body parts of the vehicle and the methods to reduce corrosion in the ferrous materials used for vehicles. **15**

(2-09/14) M-E-196

3

??