

FACULTY OF ENGINEERING**B.E. 4/4 (AE) II – Semester (Main) Examination, April / May 2013****Subject: Vehicle Body Engineering (Elective – II)****Time: 3 Hours****Max.Marks: 75****Note: Answer all questions from Part – A and any five questions from Part – B.****PART – A (25 Marks)**

1. What are the differences between a coach and double decker bus from utility view point?
2. What are the advantages of articulated vehicle over rigid truck?
3. What are the purpose of fitting air dam and rear spoiler to the vehicle?
4. How does drag coefficient affect body shape?
5. What is the type of sections used for chassis side members?
6. How is the frame safeguarded against lozenging?
7. How are the car front seats mounted and adjusted?
8. Explain driver's safety.
9. List the different materials used in engine parts.
10. Explain the term bondenizing.

PART – B (5x10 = 50 Marks)

11. Explain with neat sketches. (10)
 - a) Types of passenger cars
 - b) Types of vans
12. Explain briefly wind tunnel testing and methods of reducing air resistance. (10)
13. What are the types of loads acting on chassis frame? Explain any two briefly. (10)
- 14.(a) Explain body design requirement. (4)
 (b) List and explain two different types of car doors used in vehicles. (6)
- 15.(a) What are common paints used in car body? (4)
 (b) Explain different types of ferrous and non-ferrous materials used in vehicle. (6)
- 16.(a) Draw and explain any one type of chassis frame.
 - a) Car chassis
 - b) Bus chassis (6)
 (b) How is an automobile specified? (4)
17. Explain briefly different types of materials used in motor vehicle with construction details. (10)
