

Enrollment No: _____ Exam Seat No: _____

C.U.SHAH UNIVERSITY

Summer Examination-2017

Subject Name: Automobile Chassis and Body Engineering

Subject Code: 4TE06ACB1

Branch: B.Tech (Automobile)

Semester: 6

Date: 13/04/2017

Time: 02:30 To 05:30

Marks: 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
 - (2) Instructions written on main answer book are strictly to be obeyed.
 - (3) Draw neat diagrams and figures (if necessary) at right places.
 - (4) Assume suitable data if needed.
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- Q-1 Attempt the following questions: (14)**
- a) Horizontal component of the resultant of pressure distribution is called_____.
 - b) Write types of passenger car body.
 - c) What is Blind spot?
 - d) Why car crash test and roll over test necessary?
 - e) (Active/Passive)_____ Safety is used to refer to technology assisting in the prevention of a crash.
 - f) Give advantages of integrated type body construction?
 - g) Write various engine locations in bus body.
 - h) Draw figure of Four-wheeled type draw-bar trailers.
 - i) Write uses of tanker body.
 - j) Channel Section has good resistance to bending. (True or False)
 - k) What is asymmetric vertical load in a car?
 - l) Write advantages of Stainless steel sheets in construction of car body.
 - m) Define Metal matrix composite (MMC) body material?
 - n) List various body trim items.

Attempt any four questions from Q-2 to Q-8

- Q-2 Attempt all questions**
- a) Discuss various types of drags faced by the vehicle while moving on road. (07)
 - b) Explain body optimization techniques and aerodynamics aids for optimization of drag. (07)
- Q-3 Attempt all questions**
- a) What is visibility? Discuss method of improving visibility and space in car. (07)
 - b) How the crash test is performed for auto vehicles? (07)

Q-4 Attempt all questions



- a) What is dash board? Explain different instruments included in dash board. (07)
- b) Classify different types of bus body and explain bus body layout. (07)

Q-5 Attempt all questions

- a) Explain double skin frame construction of a bus body. (07)
- b) Explain driver seat in commercial vehicles. (07)

Q-6 Attempt all questions

- a) Discuss classification of tanker body. (07)
- b) Explain idealized structure and structural surface. (07)

Q-7 Attempt all questions

- a) Discuss car door construction with neat sketch in detail. (07)
- b) Write various Source of body noise and Explain method of elimination body noise. (07)

Q-8 Attempt all questions

- a) Explain painting process of car body in detail. (07)
- b) Write a short note on corrosion protection of vehicle body. (07)

