

SECTION-B

2. Explain in details the monocoque chassis construction.
3. Explain in detail any two types of active safety concepts.
4. Explain how the seat belt tightening system works with a neat sketch.
5. The coefficient of friction between the tyres of a car and the road is 0.5. The driver applied the brakes and car stopping distance is 1 m. What is the velocity of the car?
6. Explain the interaction of object detection with breaking system with the help of Schematic diagram.

SECTION-C

7. Write short notes on :
 - a) Electronic Brake force Distribution
 - b) Collision Warning system
8. Define Deceleration. Explain the deceleration of vehicle inside the passenger compartment with a suitable example while collision with stationary obstacle.
9. Explain the deformation behavior of the vehicle body after collision with the moving body when the collision occurs from
 - a) Front
 - b) Rear

Also suggest the correcting measures to be taken.