

Time: 3 Hours

Marks: 80

- N.B. 1) Qu. 1 is compulsory
2) Solve any three questions out of remaining five.
3) Provide neat diagrams wherever necessary.
4) All questions carry equal marks.

Qu.1) Write short note on following (Any Four)

[20]

- Final Drive.
- Disc brake.
- Stub axles.
- Reversibility of Steering Gears.
- Aerodynamic Drag.

Qu. 2) A) Classify battery and explain Lead-Acid battery with neat diagram

[10]

B) State the importance of vehicle body design explain three layouts each of Passenger car and bus.

[10]

Qu. 3) A) Stating the requirements of suspension, explain Wishbone type suspension systems in detail.

[10]

B) What are the requirements of starting motors? Explain FOLO-through and Dyer drive.

[10]

Qu. 4) A) With neat diagram explain construction and features of Air suspension.

[10]

B) Classify gear box and explain sliding mesh gear box with diagram.

[10]

Qu. 5) A) What is Electronic Control Module (ECM)? Explain.

[10]

B) With neat diagram explain construction and working of Hydraulic braking system.

[10]

Qu. 6) Write short note on following. (Any four)

[20]

- Steering geometry
- Differential
- Alternator
- Developments in Automobile sensor technology
- classification of Tyres
