

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]

- a) Final Drive.
- b) Disc brake.
- c) Stub axles.
- d) Reversibility of Steering Gears.
- e) 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]

- a) Steering geometry
- b) Differential
- c) Alternator
- d) Developments in Automobile sensor technology
- e) classification of Tyres
