

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B. Tech. (AE) (Sem.-3)
AUTOMOTIVE CHASSIS AND COMPONENTS
Subject Code : AE-203
Paper ID : [A0703]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. **SECTION-A is COMPULSORY.**
2. **Attempt any FOUR questions from SECTION-B.**
3. **Attempt any TWO questions from SECTION-C.**

SECTION-A

(10 × 2 = 20 Marks)

1. (a) What is power steering.
(b) What is the material used for front axle?
(c) Name various systems of differential locking.
(d) Which member takes the torque in Hotchkiss drive?
(e) What is the function of spring in suspension system?
(f) Which type of independent suspension is used in Maruti 800 car?
(g) How is the wheel wobble caused?
(h) What is ply rating of tyre?
(i) What is leading shoe?
(j) What is an ABS?

SECTION-B

(4 × 5 = 20 Marks)

2. Discuss various factors of wheel alignment.
3. Explain in brief the principle of working of a constant velocity joint.

4. What is the need of wheel balancing and what is the procedure ? Discuss.
5. Discuss the effect of tyre pressure on tyre performance.
6. Briefly describe the construction and working of disc brakes.

SECTION-C **(2 × 10 = 20 Marks)**

7. Distinguish between semifloating and fully floating rear axles with the help of suitable sketch.
8. Explain the construction and working of telescopic type shock absorber with the help of neat sketch.
9. Discuss any split braking system used for light and medium duty vehicles.