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Total No. of Pages: 01
Total No. of Questions: 09

B. Tech. (Sem.-3rd)
AUTOMOTIVE CHASSIS SYSTEMS
Subject Code: BTAE-303
Paper ID: [A1121]

Time: 3 Hrs.**Max. Marks: 60****INSTRUCTIONS TO CANDIDATE:**

1. *Section-A is compulsory.*
2. *Attempt any 4 question from Section-B*
3. *And any two questions from Section-C.*

SECTION-A

- Q.1.** (a) Define Kingpin Inclination.
 (b) What is the function of a propeller shaft?
 (c) What rotates the differential pinion shaft?
 (d) What is meant by dead axle?
 (e) What are the objectives of vehicle suspension?
 (f) What is the function of a shock absorber?
 (g) How does a radial ply tyre contribute to saving of fuel?
 (h) What are the different types of wheels?
 (i) What is leading shoe?
 (j) What is a self energizing brake?

2x10=20**SECTION-B**

- Q.2.** Distinguish between semi-floating and fully floating rear axles.
Q.3. Discuss the various factors of wheel alignment.
Q.4. Describe the operation of limited slip differential.
Q.5. Discuss the factors which affect the tyre life.
Q.6. Discuss the operation of an antilock braking system.

5x4=20**SECTION-C**

- Q.7.** Sketch any power steering system and explain its working.
Q.8. Explain the working of Mc Pherson strut type of suspension with a neat sketch.
Q.9. Briefly describe the construction and working of disc brakes and compare them with drum brakes.

2x10=20