

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(AE) (Sem.-3rd)
AUTOMOTIVE CHASSIS SYSTEMS
Subject Code : BTAE-303 (2011 Batch)
Paper ID : [A1121]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. **SECTION-A** is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students has to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students has to attempt any **TWO** questions.

SECTION-A**1. Write briefly :**

- a) Define camber.
- b) State factors of wheel alignment.
- c) Name two basic types of constant velocity joints.
- d) What is a fully floating rear axle?
- e) What is the function of a shackle with a leaf spring?
- f) What is the purpose of independent suspension system?
- g) What is the ply rating of a tyre?
- h) What are the advantages of a disc wheel?
- i) What is a regenerative brake?
- j) What do you understand by transfer of weight in brakes?

SECTION-B

2. Discuss the common source of trouble in propeller shaft.
3. Discuss the construction and operation of a differential.
4. Explain the steering linkage for a vehicle with independent suspension.
5. Discuss the need and procedure of wheel balancing.
6. Explain how servo action is provided in case of disc brakes.

SECTION-C

7. Discuss in detail the Ackermann steering mechanism.
8. Explain the construction and working of a telescopic type shock absorber with the help of a neat sketch.
9. Explain the necessity and principle of working of an antilock braking system. Also describe its main components.