

Roll No. 

Total No. of Pages : 02

Total No. of Questions : 18

B.Tech. (Automobile Engineering) (Sem.-5)

**AUTOMOTIVE CHASSIS SYSTEM**

Subject Code : BTAE-501-18

M.Code : 78225

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 have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

**SECTION-A****Answer briefly :**

- 1) Name the types of Chassis layout with reference to power plant location
- 2) What can be the material of axles?
- 3) Define Toe angle?
- 4) Illustrate front wheel drive.
- 5) Brief about Dead axles.
- 6) Define final drive.
- 7) List different types of suspensions.
- 8) Where are servo brakes used?
- 9) Classify brakes.
- 10) What are bias ply tires?

**SECTION-B**

- 11) Explain the multi axle steering systems.
- 12) Illustrate the effects of driving thrust and torque reactions.
- 13) With the help of diagram explain about steering of crawler tractors.
- 14) Explain the process of wheel alignment. Why is it needed?
- 15) Discuss about Tire wears patterns and their causes.

**SECTION-C**

- 16) Explain the construction of rear axles in detail.
- 17) Write note on :
  - a) Semi floating rear axles.
  - b) All season tires.
- 18) Discuss in detail about self-energizing brakes and regenerative braking systems.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**