

Roll No .....

**ME-7002 (CBGS)**

**B.E. VII Semester**

Examination, November 2019

**Choice Based Grading System (CBGS)**

**Automobile Engineering**

*Time : Three Hours*

*Maximum Marks : 70*

- Note:* i) Attempt any five questions.  
ii) All questions carry equal marks.

1. a) Write in detail classification of automobiles. 7  
b) Differentiate between unitized chassis and framed chassis. 7
2. a) Draw a ladder type of frame and explain various parts of frame. 7  
b) What is meant by front wheel drive and rear wheel drive? Explain with examples. 7
3. a) Explain the various steering geometry. 7  
b) How will you achieve power steering in a vehicle? Explain with neat sketch. 7
4. a) Derive the condition of correct steering angle. 7  
b) Explain the concept of under steer and over steer. 7

5. a) Explain the working of a single plate friction clutch. 7  
b) Draw and explain the working of torque converter. 7
6. a) Explain the working of telescopic damper (shock absorber) with neat sketch. 7  
b) Draw and explain the working of a hydraulic brake. What are its advantages over mechanical brakes? 7
7. a) Write notes on starting mechanism of a vehicle. 7  
b) How is bleeding of hydraulic brake takes place? What is its purpose? 7
8. a) Compare Bharat and Euro emission norms. 7  
b) What is the advantage of a catalytic converters? How does it help to reduce pollution? 7

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