

Roll No. ....

Total Pages : 03

**July-22-00299**

**B. Tech. EXAMINATION, 2022**

Semester V (CBCS)

AUTOMOBILE ENGINEERING

ME-505

*Time : 3 Hours*

*Maximum Marks : 60*

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*The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.*

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**Note :** Attempt *Five* questions in all, selecting *one* question from each Section A, B, C and D. Q. No. 9 is compulsory.

**Section A**

1. Define the function of automobile. Discuss the requirement of automobile body with suitable example. 10
2. Explain the construction and working of centrifugal clutch with neat and clean diagram. 10

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### Section B

3. Explain construction, working and principle of synchromesh gear box and also mention its advantages and disadvantages. 10
4. Differentiate between three quarter floating and semi-floating rear axles with neat diagrams. 10

### Section C

5. Explain constructions, working and principle of shock absorber and also mention its merits. 10
6. Explain constructions and working of rack and pinion system with suitable example. 10

### Section D

7. Explain constructions, working and principle of drum brake and also mention its merits. 10
8. Discuss the purpose and operation of starting system with neat diagram. 10

### (Compulsory Question)

9. Short answer type questions :
  - (a) Discuss clutch linkage. 4

- (b) Define the concept of gear box. 4
- (c) Define the function of kind pin inclination. 4
- (d) Define the function of brake. 4
- (e) Define the function of friction clutch. 4