

[Total No. of Questions - 9] [Total No. of Printed Pages - 2]

Dec.-22-0188

ME-505 (Automobile Engineering)

B.Tech. 5th (CBCS)

Time : 3 Hours

Max. Marks : 60

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

Note : Attempt five questions in all, selecting one question each from sections A, B, C and D of the paper and all sub-parts of the Question 9 of section E is compulsory.

SECTION - A

1. Classify the automobile and describe the concept of four wheel drive vehicles with neat diagram. (10)
2. Explain the construction and working of multiplate clutch with neat and clean diagram and also mention its applications. (10)

SECTION - B

3. Explain construction, working and principle of constant mess gear box and also mention its advantages and disadvantages. (10)
4. Explain construction and working of propeller shaft with neat and clean diagram and also mention its applications. (10)

SECTION - C

5. Explain the need of suspension system and also discuss the factors influencing the ride comfort with suitable example. (10)

2

ME-505

6. Derive and explain the condition for true rolling with suitable example and also discuss the concept of steering linkages. (10)

SECTION - D

7. Explain constructions, working and principle of hydraulic brake and also mention its merits. (10)
8. Discuss the purpose and operation of lead acid battery with neat diagram and also mention its applications. (10)

SECTION - E (Compulsory Question)

9. Short Answer type questions.
 - (a) Discuss the function of wet type clutch. (4)
 - (b) Discuss the working of universal joint. (3)
 - (c) Define the function of toe-in/toe-out. (3)
 - (d) Discuss the reason of excessive tyre wear. (4)
 - (e) Define capacity rating. (3)
 - (f) Define the concept of charging system. (3)