

Unit IV

No. of Printed Pages : 04

Roll No.

7. (a) What are the merits of hydraulic brake over mechanical brake ? 7
(b) Give the types of tyre wear and their causes. 8
8. (a) Explain air conditioning system of an automobile. 7
(b) Write short notes on any *two* of the following :
(i) positive crank case ventilation
(ii) operating of lead acid battery. 8

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B. Tech. EXAMINATION, May 2018

(Seventh Semester)

(B. Scheme) (Re-appear Only)

(ME)

ME401B

AUTOMOBILE ENGG.

Time : 3 Hours]

[Maximum Marks : 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit.

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Unit I

1. (a) How do you classify automobiles ?
Explain in detail. **8**
- (b) Explain front engine rear wheel drive vehicle with the help of neat sketch.
Describe its advantages and disadvantages over other layouts. **7**
2. (a) Describe the construction and working of : **8**
 - (i) Single plate clutch
 - (ii) Multi plate clutch.
- (b) What are the properties of good clutch lining ? **7**

Unit II

3. (a) Write the principle of over drive with its advantages. **7**
- (b) Explain the working of a synchro-mesh gearbox with the help of a neat sketch.
Also write its merits and demerits. **8**

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4. (a) What are the types of universal joint ?
Explain a cross type universal joint. **7**
- (b) Describe the Hotchkiss drive. How is it differ from torque tube drive ? **8**

Unit III

5. (a) Briefly explain the function of the following in the suspension of a vehicle :
 - (i) Stabilizer
 - (ii) Shock absorber. **7**
- (b) Write requirement and function of a suspension system and also classify them. **8**
6. (a) Describe the construction and operation of power steering. **7**
- (b) Explain the following : **8**
 - (i) Castor
 - (ii) Camber
 - (iii) King pin inclination
 - (iv) Toe-in
 - (v) Toe-out.

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