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B. Tech. 6th Semester (Mechanical Engineering)

Examination, May-2013

AUTOMOBILE ENGINEERING

Paper-ME-302-F

Time allowed : 3 hours]

[Maximum marks : 100

Note : Attempt any five questions out of eight.

1. (a) Explain with diagram clutch linkages. 10  
(b) Explain safety features of latest vehicles. 10
2. (a) Explain construction and working of electromagnetic clutch. 10  
(b) Explain over running clutch. 10
3. Explain construction, working and principle of sliding Mesh Gear box along with merits and demerits and applications. 20
4. (a) Explain full floating rear Axles. 10  
(b) Explain propeller shaft with diagram. 10
5. (a) Explain construction, working, principle of leaf spring. 10  
(b) Explain advantages and disadvantages of leaf spring. 10

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6. (a) Explain Power steering with diagram. 10  
(b) Explain Electronics Steering with diagram. 10
7. (a) Explain Brake Performance with suitable examples. 10  
(b) Explain Tyre rotation and its applications. 10
8. Write a short note on following :
- (a) Toe-in and Toe-out 5  
(b) Slip joint 5  
(c) King Pin Inclination 5  
(d) Caster. 5