

16-12-2016

Q.P. Code : 729703

(3 Hours)



[Total Marks : 80]

- N.B.**
- 1) **Question No.1** is compulsory.
  - 2) Attempt **any three** out of remaining questions.
  - 3) Draw neat sketches to illustrate your answers.
  - 4) Figures to the right indicate full marks.
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1. **With the help of neat sketch explain in brief:** 20
    - (a) Steering linkages for rigid axle suspension.
    - (b) Hydraulic Braking system.
    - (c) Over running clutch drive.
    - (d) Toe-in and Toe-out. Explain its significance.
  
  2. **Write a short note on :** 20
    - (a) Disk brakes.
    - (b) Lead Acid Battery.
    - (c) Super structure.
    - (d) Clutch.
  
  3.
    - (a) Discuss three modern trends in automobiles with their features and advantages. 14
    - (b) Describe radial ply tyres and its advantages. 06
  
  4.
    - (a) What is the necessity of gear box? Explain the working of synchro mesh gear box. 10
    - (b) Explain with sketch, coil spring front suspensions system, with its advantages. 10
  
  5.
    - (a) Discuss in brief various types of batteries. Explain the working of Alkaline Battery. 10
    - (b) Discuss the following: 10
      - i) Alternator, working principle and advantages.
      - ii) Bendix drive.
  
  6.
    - (a) Discuss; Importance of Body design and materials for body construction. 10
    - (b) Draw circuit diagram and explain the working of Voltage Regulator (cut-out). 10

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