

3

BE - sem - VIII - old - Mech

AE

16/12/15

B-10
3

QP Code : 2676

(3 Hours)

[Total Marks: 100

- NB:**
- 1) Question number **one** is compulsory
 - 2) Attempt any **Four** questions from remaining questions
 - 3) Assume suitable data wherever necessary and state it clearly
 - 4) Figures to the right indicates maximum marks

- Q 1. (a) With the help of neat sketch explain
(i.) Scrub radius, (ii.) Caster. (iii) Camber. (iv) Toe-in, Toe-out
(v) Under steer and over steer 10
(b) Explain with neat sketch working of Vacuum-servo brakes. 10
- Q 2 (a) Explain the various sources of vibration in vehicle and steps taken to
Minimize these vibrations. What is its effect on comforts human body? 10
(b) Differentiate between Fluid flywheel and Torque convertor. 10
- Q 3 (a) What are the different types steering gears? What is the purpose of
Steering gear? Explain with sketch re-circulating ball type of steering gear. 10
(b) What is the necessity of gear box? Explain the working of constant mesh
gear box 10
- 4 Q (a) Explain with sketch working of Mac-Persons strut type independent
suspension, with its advantages and dis-advantages. 10
(b) Explain with a sketch working of distributor less electronics ignition system. 10
- Q. 5.(a) Explain with sketch the importance of driver's seat. What are the basic
Parameters involved in design of driver's seat. 10
(b) Discuss the overall criteria for vehicles comparison in the same category. 10
- Q.6. (a) Explain in detailed the position and working of Sensors 10
i) MAP iii) Lambda iii) SAW
(b) Explain in detailed the working of ECM in a vehicle. 10
- Q 7. Write short notes on the following (any four) 20
i. Comparison of semi integral and integral structure
ii. Leading shoe and trailing shoe
iii. Factors affecting tyre life.
iv. Battery ratings.
v. Visibility and blind area

QP-Con. 11421-15.

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