

(3 Hours)

[Total marks: 80]



- N.B.**
- 1) Question No. 1 is compulsory.
 - 2) Attempt any three out of the remaining questions.
 - 3) Draw neat sketches to illustrate your answers.
 - 4) Figures to the right indicate full marks.

- Qu.1 With the help of neat sketches explain in brief: [20]
- (a) Zebra Battery
 - (b) Understeer and oversteer
 - (c) Over-running clutch
 - (d) Inflation pressure and its importance
- Qu.2 (a) Classify Gear box and explain Synchromesh gear box with neat sketch. [10]
- (b) Explain with sketch any two suspension systems used in cars. [10]
- Qu. 3 (a) Stating importance of vehicle body design, explain layouts of passenger cars. [10]
- (b) Explain differential and what do you mean by Non-slip differential? [10]
- Qu.4 (a) With the help of diagram explain construction and working of Telescopic type of shock absorber. [10]
- (b) Describe Radial ply tyres and it's advantages. [10]
- Qu.5 (a) What are the requirements of starting motors? Explain Dyer drive [10]
- (b) What do you mean by steering geometry? Explain. [10]
- Qu.6 Write short note on following: [20]
- (a) Advanced sensor technology used in automobiles.
 - (b) Un sprung and sprung mass.
 - (c) Anti lock braking.
 - (d) Electronic control module.

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