

(Time: 3 Hours)

Marks: 80

- N.B.: (1) Question No. 1 is compulsory.
(2) Attempt any 3 questions out of 5 questions.
(3) Figures to the right indicates full marks.
(4) Illustrate your answers with sketches wherever necessary.

- Q.1 Solve any four from remaining in six questions
- a) Explain the functions of cooling system in automotive 20
 - b) Write a note on Wheel alignment procedure 05
 - c) What are the types of vehicle maintenance carried out in vehicle 05
 - d) List a maintenance to be carried out for any 4-wheeler after first 20,000 km run 05
 - e) Which materials are used for Brake shoe and lining and what are its properties 05
 - f) What is mean by Engine Tuning 05
- Q.2
- a) What are various lighting systems controlled by head light switches 20
 - b) Explain working of rear window defogger system 10
 - c) Explain various problems and their causes for U joints 06
- Q.3
- a) Describe diagnosis of suspension and steering system 20
 - b) List out causes and remedies for Differential noise 10
 - c) What do you mean by symptom-based diagnosis 05
- Q.4
- a) Describe diagnosis and servicing of engine lower end theory 20
 - b) Explain power steering system diagnosis and servicing in detail 10
- Q.5
- a) Explain the diagnosis and servicing of starting system 20
 - b) Explain the diagnosis and servicing of Fuel injection system 10
- Q.6 Solve any four from remaining in six questions
- a) How to do the servicing of battery 20
 - b) How Multimeter can be used for various testing in automobile systems 05
 - c) Write a note on security and anti-theft devices 05
 - d) What are functions of seat belt and air bags in automobile 05
 - e) List out difference between transaxles and transmission 05
 - f) What do you mean by Clutch Juddering and dragging 05