

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

- Q.1 Solve any four from following six. 20
- a Explain the need of carrying out fuel injector diagnosis and service. 05
- b State the significance of drive shaft in automobile. 05
- c What is headrest and state its need in automobile. 05
- d Explain the need of employing vehicle tracking system. 05
- e In some operating conditions battery discharges at high rate, state its causes and effects 05
- f At what point does the maximum wear of cylinder bore occurs & why? 05
- Q.2 a Enumerate diagnosing and service procedure for starter system. 10
- b A clock spring electrical connection for sign of damage was checked by person "A" while replacing the deployed air bag module. Person "B" back probes on air bag system with multimeter and determines if it is in good working condition or not? Justify your answer. 06
- c What is double declutching and how it can be avoided? 04
- Q.3 a Make a detailed note on procedure of tyre repair. 10
- b Explain the functioning of power lock system. 05
- c List the various components in valve assembly and also trouble diagnosis of any one component 05
- Q.4 a When headlight switch position changed from low beam to high beam all headlight goes out. Person "A" says that there is an issue with bad dimmer switch but the person "B" says that ignition switch is defective. Which person is correct. Give proper justification to your answer. 06
- b Make detailed note of seat belt service. 10
- c Explain the need of carrying out trans axle service and diagnosis 04

- Q.5 a What is OBD-II and explain what do you mean by symptom based diagnosis? 10
- b Explain in details service and assembly procedure adopted for piston? 10
- Q.6 Solve any four from Six 20
- a Describe the various lighting system controlled by headlight switches. 05
- b Describe the operation of camshaft with neat sketch. 05
- c Write short note on automatic transmission stall test. 05
- d Describe the various components of typical air bag system. 05
- e Make detailed note on working of differential with neat sketch. 05
- f Enlist the need of effective steering system. 05
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