5

## Q.P. Code: 27044

Marks: 80 Time: 3 Hours N.B: Question no.1 is compulsory. Solve any 3 from remaining Questions. Q. 1 Write answer for any four questions a) Explain cooling system diagnosis in detail b) What is the purpose of engine's cylinder head valves and valve related parts? c) Write short note on Power Steering. d) What is active and passive restraint systems? State the difference between transmission and trans axle. Explain the phenomenon of roll over protection. Q. 2 a) Explain starting system diagnosis and service procedure in detail. b) Explain the major parts of typical air bag system in detail. 10 Q. 3 a) Explain transmission diagnosis in details. 10 b) What are the components of suspension system and explain in detail. 10 Q. 4 a) Why discharging rate of battery is high in some cases? Explain its causes and effects. 8 b) What is differential and explain its working in detail with sketch 8 c) What is event data recorder and Precollision system and explain it. 4 Q. 5 a) Explain power steering trouble diagnosis and servicing procedure. 10 b) What are the various lighting system controlled by head light switches? 10 Q. 6 Write short note on: (Any four) a) Flywheels 5 b) Sound system 5 c) Cigarette system 5 d) Engine bearings 5

e) Clock system