

22656

12526

3 Hours / 70 Marks

Seat No.

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- Instructions* –
- (1) All Questions are *Compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answer with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.
 - (5) Assume suitable data, if necessary.
 - (6) Use of Non-programmable Electronic Pocket Calculator is permissible.
 - (7) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

- 1. Attempt any FIVE of the following: **10****
- a) Write functions of Universal joint.
 - b) Why differential is used in automobile.
 - c) State necessity of braking system.
 - d) State types of suspension system.
 - e) Enlist different tests of battery.
 - f) List the duties of R.T.O.
 - g) State functions of transmission system in automobile.

P.T.O.

- 2. Attempt any THREE of the following:** **12**
- a) Draw a neat sketch of front engine front wheel type vehicle layout and label it.
 - b) Differentiate between coil spring clutch and diaphragm clutch.
 - c) List the requirements of steering system.
 - d) Explain any four factors affecting tyre life.
- 3. Attempt any THREE of the following:** **12**
- a) Justify, "Aerodynamic shape of an automobile improves performance of vehicle".
 - b) Describe with neat sketch working of recirculating ball type steering.
 - c) Write any four advantages of tubeless tyre over tube tyre.
 - d) Explain functions and requirements of lighting system.
- 4. Attempt any THREE of the following:** **12**
- a) Compare two wheel and four wheel drive of vehicle.
 - b) Explain function of Bendix drive in starter system.
 - c) Write salient features of motor vehicle act 1988.
 - d) Write different colour codes of wires used in automobile wiring system.
 - e) Explain criteria to be considered for selecting site for garage.
- 5. Attempt any TWO of the following:** **12**
- a) Describe the working of overdrive with neat sketch.
 - b) State need of power steering and explain general layout of power steering.
 - c) Explain working of telescopic shock absorber and label the main parts.

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Marks

6. Attempt any TWO of the following:

12

- a) Explain necessity and working of single plate clutch with neat sketch.
 - b) Explain with neat sketch Electronic ignition system.
 - c) State and explain different types of vehicle maintenance.
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