

22656

23242

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 answers with neat sketches wherever necessary.
(4) Figures to the right indicate full marks.
(5) 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) Enlist any four main component of automobile.
 - b) State function of universal and slip joint used in propeller shaft.
 - c) State different type of real axle.
 - d) State the function of Braking System.
 - e) State drives used for starting.
 - f) State any four records to be kept in service station.
 - g) Write any four responsibility of RTO.
- 2. Attempt any THREE of the following: 12**
- a) Explain with neat sketch working on constant mesh gearbox.
 - b) Describe wishbones type suspension system with neat sketch.
 - c) State and explain different forces acting on the vehicle body related to aerodynamics.
 - d) Explain with neat sketch starting system.

P.T.O.

- 3. Attempt any THREE of the following:** **12**
- a) Draw general layout of automobile and label the component names.
 - b) Explain with neat sketch hydraulic braking system.
 - c) Describe construction of Mac pherson suspension system with neat sketch.
 - d) Draw neat sketch and explain Bendix drive.
- 4. Attempt any THREE of the following:** **12**
- a) Explain the importance of aerodynamic shape of a car body.
 - b) Explain with neat sketch of drum brake.
 - c) Explain with neat sketch tube tyre and tube less tyre.
 - d) Explain construction and working of alternator.
 - e) Write role of AIMV.
- 5. Attempt any TWO of the following:** **12**
- a) Draw any six traffic symbols or picture.
 - b) Explain working principle with neat sketch of single plate clutch.
 - c) Explain steering geometry with neat sketch considering the
 - i) Camber
 - ii) King pin inclination
 - iii) Toe in
 - iv) Castor
 - v) Toe out
- 6. Attempt any TWO of the following:** **12**
- a) Explain procedure of wheel balancing and wheel alignment.
 - b) Explain working principle and construction of Lead Acid battery with neat sketch.
 - c) Explain the construction and working of synchromesh gear box with neat sketch.
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