

22559

12425

03 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) Assume suitable data, if necessary.
 - (6) 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) State any two functions of frame.
 - b) Define need of positive crank case ventilation.
 - c) Define caster angle.
 - d) State any two disadvantages of petroil lubrication.
 - e) State the different selection criteria for wheel.
 - f) List different components of starting system.
 - g) State use of jacket and helmet.

P.T.O.

- 2. Attempt any THREE of the following** **12**
- a) Describe the working of single cradle frame.
 - b) Explain working of lubrication system of Rickshaw four-stroke engine with sketch.
 - c) Describe the working of Gas filled shock absorber with neat sketch.
 - d) Explain use of spoke wheel for motorcycle with justification.
- 3. Attempt any THREE of the following** **12**
- a) List different types of muffler, Explain any one.
 - b) Explain constructional details of monocoque frame.
 - c) Differentiate between chain drive and belt drive.
 - d) State the function -
 - i) Crash Bar
 - ii) Saree Guard
- 4. Attempt any THREE of the following** **12**
- a) Explain layout of passenger auto rickshaw.
 - b) Explain the effect of shape of fuel tank in motorcycle aerodynamics
 - c) State the use of -
 - i) Day night goggle.
 - ii) Mud guard
 - d) Explain with neat sketch EGR.
 - e) State the effect of driving habits.

5. Attempt any TWO of the following**12**

- a) Compare kick start and button start arrangement on the basis of effort, battery, convenience and maintenance.
- b) State the purpose of -
 - i) Speed meter
 - ii) Trip meter.
 - iii) Head lamp
- c) Explain working of multi-plate clutch with neat sketch.

6. Attempt any TWO of the following**12**

- a) Explain Carburettor working under various engine operating conditions.
 - i) Idling
 - ii) Starting
 - iii) Accelerating
 - iv) Normal running
 - b) Explain construction and working of constant mesh gear box with neat sketch.
 - c) Explain working of micro processor controlled ignition system with neat sketch.
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