

17521

11920

3 Hours / 100 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) 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. a) Attempt any THREE of the following: **12**
- (i) Compare two wheeler gear box with four wheeler gear box.
- (ii) Explain cleaning procedure of paper element of air filter.
- (iii) Differentiate between four stroke and two stroke engine. (any two points)
- (iv) Describe the working of fuel supply system used in two wheeler.
- b) Attempt any ONE of the following: **06**
- (i) Explain construction and working of constant vacuum type carburetor with diagram.
- (ii) State the use of
- (1) Speedometer.
- (2) Odometer.
- (3) Turn Signal Indicator.

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- 2. Attempt any FOUR of the following:** **16**
- a) Explain working of centrifugal type clutch used in vario-drive mechanism.
 - b) Sketch the overhead valve arrangement.
 - c) Write important of ground clearance any four points.
 - d) Explain any four factors which affect the steering.
 - e) Write any four function perform by tyre.
- 3. Attempt any FOUR of the following:** **16**
- a) State any two function of frames with their types.
 - b) Write any four advantages of multiple valve.
 - c) Explain any four possible causes of suspension troubles.
 - d) Write any four advantages of gas filled shock absorber used in rear end suspension.
 - e) Differentiate between motorcycle wheel and scooter wheel.
- 4. a) Attempt any THREE of the following:** **12**
- (i) Differentiate between Disc and Drum brakes (any four points)
 - (ii) Describe working of CDI system.
 - (iii) State the use of
 - (1) Tachometer at dashboard.
 - (2) Tail and Dumber plate lamp.
 - (iv) Draw the circuit diagram of charging system.
- b) Attempt any ONE of the following:** **06**
- (i) Explain construction and working of three way catalytic convertor with block diagram.
 - (ii) Explain working of kick start mechanism. State each two merits and demerits of it's.

- 5. Attempt any FOUR of the following:** **16**
- a) Explain cable actuated clutch working with diagram.
 - b) Explain working of wet sump pressurized lubrication system in two wheeler.
 - c) Write any advantages of twin spark ignition system.
 - d) Write any two precaution to avoid skidding of two wheeler.
 - e) Describe ergonomic aspects for seat arrangement for rider and pillion rider.
- 6. Attempt any FOUR of the following:** **16**
- a) Draw block diagram of micro processer controlled ignition system.
 - b) Draw layout of exhaust system in two wheeler and write function of each part.
 - c) Write any four battery care tips.
 - d) Describe effect of shape of head lamps on aerodynamic of motorcycles.
 - e) Explain any four good riding habits.
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