

17521

11718

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) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

- 1. Attempt any FIVE of the following: **20****
- What is Gear ratio? State the Gear ratio of Motor Cycle.
 - State any four advantages of Electronic Injection System.
 - State four advantages of gas filled shock absorber used in rear end suspension system.
 - Differentiate between Disc Brake and Drum Brake system with examples.
 - Describe the working of microprocessor controlled Ignition System.
 - State the importance of Helmet and Day-night Goggle while driving 2-wheeler.
 - Describe the construction and working of washable oiled sponge element type of air filter.

P.T.O.

2. Attempt any FOUR of the following:**16**

- a) Compare chain drive with Belt drive with their applications.
- b) Describe the working of Catalic Converter with a neat sketch.
- c) State the purpose of providing Coil-in-Coil spring arrangement in suspension system.
- d) What is the criteria for selection of a tyre for Sport Bikes.
- e) What is mean by DTSL system? State its purpose.
- f) Why ground clearance is most necessary for 2-wheelers. Explain.

3. Attempt any FOUR of the following:**16**

- a) Describe the working of Constan Mesh Gear Box used in Motor Cycle with schematic layout.
- b) What is mean by EGR? Describe it with neat sketch.
- c) State the purpose of following:
 - (i) Horn
 - (ii) Reflector
 - (iii) Mobile charge point
 - (iv) Tachometer
- d) State any four good and safe driving habits to avoid accidents.
- e) State the functions of Fuel Supply System of 2-wheeler.
- f) State the importance of :-
 - (i) Side panels of scooter and Motor Cycle
 - (ii) Tail lamp and Indicator Light

- 4. Attempt any FOUR of the following:** **16**
- a) Describe Centrifugal Clutch used in LMV with neat sketch.
 - b) List Intake Systems of 2-Stroke Petrol engine. Describe any one with sketch.
 - c) Describe the working of Double Acting type shock absorber with neat sketch.
 - d) Describe the working of charging system of two wheeler with block diagram.
 - e) Explain the ergonomics effects of :
 - (i) Motor Cycle Handle Bar Position.
 - (ii) Seating arrangement for rider and pillion rider.
 - f) What is Muffler? State its types. Explain any one with sketch.
- 5. Attempt any FOUR of the following:** **16**
- a) Compare Two wheeler Gear Box with Four wheeler Gear Box.
 - b) Describe the Gravity feed fuel supply system.
 - c) Compare Kick start and Button start of 2-wheeler vehicle with proper examples.
 - d) State the use of:
 - (i) Neutral Indicator lamp
 - (ii) Speedometer lamp
 - e) Write the working of carburettor under four engine operating conditions:
 - (i) Idling
 - (ii) starting
 - (iii) accelerating
 - (iv) normal running
 - f) Describe the working of internal expanding shoe type mechanical brake with sketch.

6. Attempt any FOUR of the following:**16**

- a) What are the major components of transmission system of motor cycle? Explain any two.
 - b) Describe the working of Down Draught Carburetor system with neat sketch.
 - c) Mention the functions of following:
 - (i) D.C. Motor
 - (ii) Battery
 - (iii) Solenoid
 - d) Describe the effects of following on aerodynamic shape of Motor Cycle.
 - (i) Shape of fuel tank
 - (ii) Shape of head lamp
 - e) Draw Schematic diagram of 2-stroke Petrol Engine and label the parts of it.
 - f) State the function of:
 - (i) crash bar
 - (ii) saree guard
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