

Reg. No.									
----------	--	--	--	--	--	--	--	--	--



**MANIPAL INSTITUTE OF TECHNOLOGY**  
**MANIPAL**  
*A Constituent Institution of Manipal University*

**VI SEMESTER B.TECH. (MECHATRONICS ENGINEERING)**

**END SEMESTER EXAMINATIONS, MAY/JUNE 2017**

**SUBJECT: Automobile Engineering [MTE4001]**

**REVISED CREDIT SYSTEM**

**Time: 3 Hours**

**MAX. MARKS: 50**

**Instructions to Candidates:**

❖ Answer **all the** questions.

- |   |          |
|---|----------|
| <b>1A.</b> Explain the purpose, function and terminologies of Piston with sketch.               | <b>4</b> |
| <b>1B.</b> Discuss VIS technology used in the vehicle.  | <b>2</b> |
| <b>1C.</b> With sketch explain the construction and working of electrically operated fuel pump. | <b>4</b> |
| <b>2A.</b> Sketch and explain the working of fuel injector used in diesel engine.               | <b>3</b> |
| <b>2B.</b> With schematic diagram explain the working of battery ignition system.               | <b>4</b> |
| <b>2C.</b> Discuss on mist lubrication system and mention its disadvantages.                    | <b>3</b> |
| <b>3A.</b> Explain the construction and working of cone clutch with sketch.                     | <b>5</b> |
| <b>3B.</b> Describe with sketch construction and working of sliding gear box.                   | <b>5</b> |
| <b>4A.</b> Describe the necessity, function and working of each parts of a drive line system.   | <b>3</b> |
| <b>4B.</b> Sketch the steering linkages for rigid axel suspension system.                       | <b>3</b> |
| <b>4C.</b> Compare rigid axel and independent suspension system.                                | <b>4</b> |
| <b>5A.</b> With the sketch explain the working of standard Bendix drive for starter motor.      | <b>5</b> |
| <b>5B.</b> Sketch and explain the construction and working of fixed caliper disk brake.         | <b>5</b> |