



## IV SEMESTER B.TECH (MECHANICAL/IP ENGG.) END SEMESTER EXAMINATIONS, APRIL/MAY 2017

SUBJECT: AUTOMOBILE ENGINEERING [MME 2204]

REVISED CREDIT SYSTEM

Time: 3 Hours

MAX. MARKS: 50

### Instructions to Candidates:

- ❖ Answer **ALL** the questions.

- 1A.** Explain the term Piston slap. With a sketch, explain a special purpose piston used to control piston slap. **04**
- 1B.** How the charge enters the combustion chamber. With sketch, explain the construction of the component used to allow charge to enter the combustion chamber. **03**
- 1C.** List the factors affecting the ignition advance. **03**
- 2A.** With a neat sketch, explain the working of battery ignition system for a 6 - cylinder engine. **04**
- 2B.** List down the purposes of lubrication. Explain Splash lubrication system. **03**
- 2C.** With a neat sketch explain the working of a single plate clutch **03**
- 3A.** With the help of a schematic arrangement, explain the constant mesh gear box. **04**
- 3B.** List the functions of a propeller shaft in an automobile. **02**
- 3C.** With a neat sketch, explain the various parts of a differential mechanism. **04**
- 4A.** List the functions performed by an effective steering system in an automobile. **04**
- 4B.** Explain the Toe-in & Toe-out concept in an automobile, using appropriate **03**

sketches.

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| <b>4C.</b> | List the various functions and requirements of a suspension system.        | <b>03</b> |
| <b>5A.</b> | Explain with suitable sketches, the working of a hydraulic shock absorber. | <b>03</b> |
| <b>5B.</b> | List the various requirements of an effective braking system.              | <b>03</b> |
| <b>5C.</b> | Compare and contrast disc brakes and drum brakes.                          | <b>04</b> |