

II YEAR II SEM

15AME21-THERMAL ENGINEERING LAB

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Course Description & Objectives: Students undergoing this course would gain knowledge about the working of I.C engines and will have the knowledge about the working of ignition and fuel system.

1. Valve Timing Diagram of 4 Stroke Diesel Engine
2. Port Timing Diagram of Single Cylinder 2 - Stroke Petrol Engine
3. Assembly and Disassembly of Diesel and Petrol Engines
4. Performance Test on 2 - Stage Reciprocating Air Compressor
5. Performance Test on 2 – Stroke Single Cylinder Petrol Engine Coupled to D.C Generator Loaded Resistance Rheostat with Motoring Test Rig
6. Performance Test on 4 – Stroke 4 Cylinder Petrol Engine Coupled to D.C Generator Loaded Resistance Rheostat with Motoring Test Rig
7. Performance Test on Refrigeration Test Rig
8. Performance Test on Air Conditioning Test Rig
9. Study of Boilers
10. Demonstration of Diesel and Petrol engines by cut models.

Course Outcomes:

Upon the successful completion of the course, learners will be able to:

- Explain the various working cycles of engine
- Describe the various types of combustion in IC engines.
- Illustrate the engine combustion parameters.
- Describe the different types of modern engines.

Explain the modern electronic engine management system (EMS) of IC engines.

