B.Tech III Year I Semester

JNTUA COLLEGE OF ENGINEERING (AUTONOMOUS) PULIVENDULA

19AME56 – THERMAL ENGINEERING LAB

L	T	P	C
0	0	3	1.5

Course Objectives: The objectives of the course are to make the students learn about

- Understand the functioning and performance of I.C. Engines
- To find heat losses in various engines

List of Experiments

1. Demonstration of diesel and petrol engines by cut models.
2. Valve timing diagram of 4-stroke diesel engine.
3. Port timing diagram of 2-stroke petrol engine.
4. Performance of 2-stroke single cylinder petrol engine.
5. Morse test on multi cylinder petrol engine.
6. Performance of 4-stroke single cylinder diesel engine.
7. Performance of two stage reciprocating air compressor.
8. Performance of Refrigeration system.
9. Performance of Air conditioning system.
10. Assembly and disassembly of diesel and petrol engines.
11. Performance of heat pump.
12. Performance of variable compression ratio of petrol engine.
13. Demonstration of heat pipe

Course Outcomes:

At the end of this Course the student will be able to

- Explain different working cycles of engine **L2**
- Describe various types of combustion chambers in IC engines **L3**
- Illustrate the working of refrigeration and air conditioning systems **L5**
- Evaluate heat balance sheet of IC engine. **L6**

Head
Mechanical Engineering Department,
JNTUA College of Engineering,
PULIVENDULA - 516 390.