

**DECCAN COLLEGE OF ENGINEERING & TECHNOLOGY**  
DAR-US-SALAM, HYDERABAD – 500 001.

**DEPARTMENT OF MECHANICAL & PRODUCTION ENGINEERING**  
**THERMODYNAMICS & HEAT ENGINE LAB.**  
**EQUIPMENT LIST**

<b>S.No.</b>	<b>EQUIPMENTS</b>
01.	Kirlosker Single Cylinder 4 Stroke Diesel. 5 H.P.
02.	Triple Multi Cylinder 4 Stroke Petrol Engine 10 H.P.
03.	Unistants Single Cylinder Horizontal Type
04.	4-stroke Diesel Engine 10 H.P.
05.	Altech Multi Cylinder 4-Sroke Diesel Engine (Matador) 10 H.P.
06.	Triplee Refrigeration Test Rig Complete set.
07.	Triplee Single Cylinder Two Stroke Petrol Engine
08.	Air Compressor Rig 5 H.P.
09.	Experiment Centrifugal Blower
10.	RAP 122 Pensky Martin Flash Point Apparatus.
11.	Abel's Flash Point Apparatus.
12.	Redwood Visco Meter No.1 RAP 103
13.	Pentro Meter Apparatus
14.	Oxygen Gas Cylinder 65 M. Approximately
15.	Double Stage Static Pressure Regulator
16.	Say bolt Visco Meter
17.	Carbon Residue Apparatus
18.	Bomb Calorimeter
19.	Junker's Gas Calorimeter Complete Unit
20.	Analytical Balance Capacity 200 gm
21.	Single Pan Electronic Balance
22.	Single Cylinder Diesel Engine
23.	Single Cylinder Petrol Engine
24.	Axial Flow Fan Test Rig.
25.	Cascade Wind Tunnel
26.	Air-Conditioning Test Rig.
27.	Refrigeration Test Rig.

## **LIST OF EXPERIMENTS**

<b>S.No.</b>	<b>EXPERIMENTS</b>
01.	To conduct Performance test on Single Cylinder Vertical Diesel Engine.
02.	To determine Air/Fuel ratio and Volumetric efficiency Test on single cylinder vertical Diesel Engine.
03.	To draw Heat Balance Sheet for single cylinder vertical diesel engine.
04.	To conduct Performance Test on Multi cylinder Petrol engine.
05.	To conduct Morse Test on Petrol Engine.
06.	To conduct Performance Test on Ruston engine.
07.	To draw valve timing diagram for Ruston engine.
08.	To conduct performance test on Multi cylinder Diesel Engine
09.	To determine Air / Fuel Ratio and volumetric efficiency on multi cylinder Diesel Engine
10.	To draw Heat Balance Sheet for Multi cylinder Diesel Engine
11.	Experiments on an Axial Flow Fan test rig. for the measurements of dynamic pressure, total pressure and efficiency of fan.
12.	To study pressure distribution in symmetrical and non-symmetrical specimen in wind tunnel.
13.	Measurement of lift and drag of the models in the wind tunnel test section.
14.	To determine viscosity of lubricating oil using Saybolt Viscometer
15.	To determine viscosity of lubricating oil using Redwood Viscometer
16.	To determine flash and fire points of the given oil using Pensky Martin's apparatus.
17.	To determine flash and fire points of the given oil using Abel's apparatus.
18.	To determine C.O.P. of Air-conditioning test rig using capillary expansion.
19.	To determine C.O.P. of Air-conditioning test rig using Thermostatic expansion system
20.	To determine C.O.P. of Refrigeration test rig working on vapour compression system.
21.	To determine overall efficiency of Centrifugal Blower.
22.	To determine efficiency of two stage Reciprocating Compressor.