



DIPLOMA IN MECHANICAL ENGINEERING

CENTRALIZED QUESTION BANK

1020234540 - HEAT POWER ENGINEERING

**DIRECTORATE OF TECHNICAL
EDUCATION GOVERNMENT OF
TAMILNADU**

DIPLOMA END SEMESTER / YEAR EXAMINATION – 2025

Course: Mechanical Engineering

Subject : Heat power Engineering

QP Code : 1020234540

Time : 3 Hours

Date :

Session:

Max Marks: 100

Answer the following questions

1. Determine the flash and fire point of the lubricating oil by using Open cup apparatus and Closed cup apparatus and compare the value for the given sample.
2. Draw the valve timing diagram of single cylinder four stroke petrol engines.
3. Draw the valve timing diagram of single cylinder four stroke diesel engines.
4. Draw the port timing diagram of a single cylinder two stroke Petrol Engine.
5. Load test (Performance test) on Four Stroke Diesel Engine or Four Stroke Petrol Engine.
6. Morse test on multi-cylinder petrol engine.
7. Heat balance test on Four Stroke Diesel or Petrol Engine.
8. Volumetric efficiency of Air Compressor.
9. Determination of COP of Refrigeration System.
10. Find the Percentage of CO , CO₂, O₂ and amount of HC , NO_x using Exhaust gas analyzer.

Allocation of Marks

Sl No	Description	Marks
1	Aim and procedure	10
2	Tabular Column / Formulae	10
3	Observation / Calculation / Diagram	30
4	Result / Graph	10
5	Written Test (Theory Portions)	30
6	Viva Voce	10
Total		100