

FINAL EXAM 33 MC questions of equal weight.
Exam is organized in four parts:

I. Thermodynamics 1(material discussed prior to test 1 and tested in midterm 1): 8 Questions

3 straightforward
2 medium difficulty
3 time-consuming

II. Thermodynamics 2 (Entropy and Carnot Cycle) 4 questions

3 Straightforward
1 Medium Difficulty

III. Mechanics 1 Kinematics, Newton's Laws, Work and Energy, Linear Momentum

8 Straightforward
4 Medium difficulty
1 Time-Consuming

MECHANICS II (ROTATIONAL DYNAMICS, TORQUE, ANGULAR MOMENTUM, FLUID DYNAMICS)

3 Medium Difficulty
3 Time Consuming
1 Medium

TOTAL:

14 Straightforward
11 Medium
8 Time Consuming

Please note what is considered to be straightforward or medium is relative.

If the topic has been discussed in depth, with many problems solved in assignment/DGD/ class then even if it is technically medium difficulty I would classify it as straightforward in light of what has been done in our class.

On the other hand, the problem that is relatively easy might be labelled as medium-difficulty if it relates to a topic that was not discussed extensively in class.

Time-consuming problems are just that – they take longer to solve because of number of calculations you have to perform, or they are less obvious and require some thinking.

DETAILS:

- 1 Efficiency of the Engine.
- 2 Work and Heat In gas transformations
- 3 Work and Heat In gas transformations
- 4 Speed distributions
- 5 Heat Transfer
- 6 Calorimetry
- 7 Speed distributions
- 8 Speed distributions
- 9 Entropy
- 10 Entropy
- 11 Entropy
- 12 Carnot Engine

- 13 Newtonian Dynamics
- 14 Kineamatics
- 15 Newtonian Dynamics
- 16 Linear Momentum
- 17 Rotational Kinematics
- 18 Work
- 19 Work and Energy
- 20 Newtonian Dynamics
- 21 Buoyant Force
- 22 Newtonian Dynamics
- 23 Work
- 24 Conservation of Energy
- 25 Buoyant Force

- 26 Rotational Dynamics
- 27 Rotational Equilibrium
- 28 Rotational Dynamics
- 29 Angular Momentum
- 30 Rotational Dynamics
- 31 Rotational Equilibrium
- 32 Angular Momentum
- 33 Fluid Dynamics