

Предварительные вопросы по экзамену:

1. Statistics for small systems.
2. Systems with many elements.
3. Energy and the first law.
4. Internal energy.
5. Interactions between systems.
6. States and the second law.
7. Internal energy and the number of accessible states.
8. Entropy and the second law.
9. Entropy and thermal interactions.
10. Constraints. Natural constraints.
11. Choice of variables.
12. Special processes.
13. Engines.
14. Diffusive interactions.
15. Classical statistics. Probabilities and microscopic behaviors.
16. Kinetic theory and transport processes in gases.
17. Magnetic properties of materials.
18. The partition function.
19. Quantum statistics.
20. Quantum gases.
21. Blackbody radiation.
22. The thermal properties of solids.
23. The electrical properties of materials.
24. Low temperatures and degenerate systems.