**1.**

1. Thermodynamics is the study of the relationships between heat, work, and energy.

2.Thermodynamics can be used in chemistry, physics, biology and other sciences.

3. Physical life can be described as a continuous thermodynamic cycle of transformations between heat and energy.

4. According to the second law of thermodynamics, transformations are never absolutely effective.

5.The work output of a system can never be greater than the net energy input.

6. According to the first law of thermodynamics, transformations are never absolutely effective. Therefore, it is impossible to create a perpetual motion machine.

7. Due to the laws of thermodynamics, an internal combustion engine and a refrigerator were created.

8. Any physical system can be described by specifying its properties, such as pressure, temperature, or chemical composition.

9. Three laws of thermodynamics predict the equilibrium state of the system.

**2.**

1. as
2. between
3. than
4. of
5. as
6. to
7. by

**3.**

1. thermodynamics
2. equilibrium
3. external constraints
4. perpetual motion machine
5. transformations
6. physical system
7. internal combustion engine
8. predict
9. efficient
10. output
11. application