

PHY207

Question: The locus of standard liquid line and standard vapour line meets at_____.

Answer: Critical point

Question: _____ law states that, all perfect gases change in volume by $1/273^{\text{th}}$ of their original volume at 0°C for every 1°C change in temperature when pressure remains constant.

Answer: Charles' law

Question: _____ hypothesis states that the molecular weights of all the perfect gases occupy the same volume under same conditions of pressure and temperature

Answer: Avogadro

Question: Work done in a free expansion process is equal to_____.

Answer: Zero

Question: The degree of hotness or coldness of a body is called_____.

Answer: Temperature

Question: When there is a flow of heat into a system, heat is said to be _____.

Answer: Positive

Question: A Thermometer is named after the _____ property used for its construction

Answer: Thermometric

Question: The instrument for measuring the temperature of a body is known as_____.

Answer: Thermometer

Question: Electrical conductivity of a metal depends on the movement of _____ through its crystal lattice.

Answer: Electrons

Question: The relationship between the temperature and electrical resistance is usually _____.

Answer: Non-linear

Question: The transfer of heat through solids is known as_____.

Answer: Conduction

Question: The transfer of heat through fluids is known as_____.

Answer: Convection

Question: When the thermal resistance of a slab is a high value, it indicates a_____insulation

Answer: good thermal

Question: The process in which energy is transferred by means of electromagnetic

waves is known as _____.

Answer: Radiation

Question: The unit of energy in SI units is _____.

Answer: Joule

Answer: J

Question: The equation $Q = \sigma T^4 A$ is known as the _____ law.

Answer: Stefan-Boltzmann

Question: The ratio of radiant energy emitted by an object to the one it would have emitted if it were to be a perfect blackbody is known as _____.

Answer: Emissivity

Question: The rate of energy loss per second that is proportional to the temperature difference between the object and its surroundings is known as _____.

Answer: Newton's law of cooling

Question: The heating and expanding of a gas is called _____.

Answer: Thermodynamic cycle

Question: When work is being performed by a system it is said to be a _____ work.

Answer: Negative

Question: The transfer of heat between two bodies in direct contact is called _____.

Answer: Conduction

Question: The equation $dQ = dE + dW$ holds good for _____ process

Answer: reversible

Answer: Irreversible

Question: The entropy always remains constant for a _____ process that occurs in a closed system.

Answer: Reversible

Question: Whose statement is this? "No process is possible whose sole results is to the complete conversion of heat into work".

Answer: Kelvin's

Question: The most efficient heat engine is known as _____ engine

Answer: Carnot

Question: Total heat of a substance is also known as _____.

Answer: Enthalpy

Question: The _____ Cycle consists of two adiabatic processes and two constant volume processes.

Answer: Otto

Question: The purpose of the displacer mechanism is to move the working gas between the hot and cold ends of the machine through the _____.

Answer: Regenerator

Question: The _____ is a device that uses work to transfer energy from a low temperature reservoir to a high temperature reservoir.

Answer: Refrigerator

Question: When a carnot engine is reversed it is called a _____.

Answer: carnot refrigerator

Question: The process in which the entropy of the system increases for irreversible process and remains unchanged for reversible process is _____ law of thermodynamics.

Answer: Second

Question: $TdS = dU + PdV$ is a combined laws of _____.

Answer: thermodynamics

Question: Water contained in a beaker can be made to boil by passing steam through it at a pressure greater than _____.

Answer: atmospheric pressure

Question: The more effective way of increasing efficiency of Carnot engine is to _____.

Answer: Decrease temperature

Answer: Reduce temperature

Question: _____ process is the one that takes place at constant pressure.

Answer: Isobaric

Question: The latent heat of steam at atmospheric pressure is _____.

Answer: 2257 kJ/kg

Question: The efficiency of Ericsson cycle is _____ Carnot cycle

Answer: Equal to

Question: Gas laws are applicable to _____.

Answer: Gases alone and not to vapours

Question: Which of the following laws is applicable for the behaviour of perfect gas _____?

Answer: All of the options

Question: An ideal gas as compared to a real gas at very high pressure occupies_____.

Answer: More volume

Question: When there is a flow of heat into a system heat is said to be_____.

Answer: positive

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Answer: Radiation

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Question: A body that absorbs all the electromagnetic waves is called_____.

Answer: perfectly black body

Question: The equation $Q = \sigma \epsilon T^4 A$ is known as the_____ law.

Answer: Stefan-Boltzmann's

Question: The ratio of radiant energy emitted by an object to the one it would have emitted if it were to be a perfect blackbody is known as_____.

Answer: Emissivity

Question: The rate of energy loss per second that is proportional to the temperature difference between the object and its surroundings is known as_____.

Answer: Newton's law of cooling

Question: When work is being performed on a system it is said to be a_____work.

Answer: Positive

Question: The efficiency of carnot cycle may be increased by_____.

Answer: Decreasing the highest temperature

Question: The work done in a system of wires is equal to_____.

Answer: $\text{Tension} \times \text{Length}$

Question: Water at standard atmospheric conditions_____.

Answer: Is far below its critical state

Question: The entropy always remains constant for a _____ process that occurs in a closed system.

Answer: Reversible

Question: No process is possible whose sole results is to the complete conversion of heat into work' is known as_____ Statement.

Answer: Kelvin's

Question: The most efficient heat engine is known as_____ engine.

Answer: Carnot

Question: A _____ engine is a device used to convert thermal energy into mechanical work.

Answer: heat

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Answer: Otto

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Answer: regenerator

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Question: The _____ is a device that uses work to transfer energy from a low temperature reservoir to a high temperature reservoir.

Answer: Refrigerator

Question: According to kinetic theory of gases, the absolute zero temperature is attained when_____.

Answer: Kinetic energy of the molecules is zero

Question: The unit of pressure in S.I. unit is_____.

Answer: Pascal

Question: $TdS = dU + PdV$ is a combined laws of_____.

Answer: thermodynamics

Question: The irreversible component of work is dissipated as _____.

Answer: Heat

Question: In a system, all the forms of non-dissipative work is collectively called _____.

Answer: configuration work

Question: No liquid can exist as liquid at_____.

Answer: Center of earth