

PPSC Physics Topic 3 Thermal Properties of Matter

Sr	Questions	Answers Choice
1	The process in which no heat enters or leaves the system is called.	A. Isobaric B. Isochoric C. Isothermal D. Adiabatic
2	Entropy of universe is increasing day by day due to.	A. Power generating processes B. Energy used into work C. Depletion of ozone D. All of the above
3	Which kind of motion is exhibited by molecules of monoatomic gas.	A. Rotatory B. Vibratory C. Translatory D. Random
4	The actual gas can behave like an ideal gas at	A. Low density and high pressure B. High density and high pressure C. Low density and low pressure D. High density and low pressure
5	If temperature of the sink is decreased the efficiency of a Carnot engine	A. Increases B. Decreases C. Remains constant D. First increases and then decreases
6	A heat engine with 100% efficiency would have to	A. Do no work B. Be at a uniform temperature C. Use no heat D. Discharge at 0°C
7	When the temperature of source and sink of a heat engine become equal the entropy change will be.	A. Zero B. Maximum C. Minimum D. Negative
8	The highest efficiency of a heat engine whose low temperature is 17°C and the high temperature of 200°C is.	A. 20% B. 30% C. 35% D. 40%
9	In a vacuum flask the vacuum prevents heat transfer by	A. Radiation only B. Conduction only C. Convection only D. Conduction and convection
10	When heat is supplied to a metallic sphere which one of the following changes will occur.	A. the mass of the sphere increases B. The volume of the sphere increases C. The density of the sphere increases D. The internal energy of the sphere increases
11	How solid hydrogen is obtained.	A. By cascade process B. By joule kelvin effect C. By adiabatic expansion D. Lowering temperature below melting point
12	Which of the following is an example of irreversible process.	A. Melting of ice B. Work done against friction C. Peltier heating and cooling D. All isothermal and adiabatic changes
13	Diffusion of gases occurs because the molecules of the	A. Gas present in a higher concentration exerts a high pressure B. Gases are different C. Gases attract each other D. Gases move about randomly
14	The behavior of the gases that can be easily liquefied is like that of the.	A. Triatomic gases B. Ideal gases

		<p>C. Van der Waals gases</p> <p>D. Diatomic gases</p>
15	Gas exerts pressure on walls of the vessel because gas molecules.	<p>A. Possess momentum</p> <p>B. Have finite volume</p> <p>C. Collide with each other</p> <p>D. Obey gas laws</p>
16	If the pressure in a closed vessel is reduced by drawing some gas the mean free path of the gas molecules.	<p>A. Decreases</p> <p>B. Remains constant</p> <p>C. Increases</p> <p>D. First increases then decreases</p>
17	A cup of coffee at 80 °C is left to cool to 30 °C if the heat capacity of the cup and coffee is 2.0 kJ K ⁻¹ how much heat is released during the cooling.	<p>A. 0.04 kJ</p> <p>B. 100 kJ</p> <p>C. 60 kJ</p> <p>D. 160 kJ</p>
18	The mechanical equivalent of heat is.	<p>A. Physical quantity</p> <p>B. Constant</p> <p>C. Conversion factor</p> <p>D. Zero</p>
19	Difference between C _p and C _v is equal to	<p>A. General gas constant</p> <p>B. Planck's constant</p> <p>C. Molar gas constant</p> <p>D. Boltzmann's constant</p>
20	Law of increase of entropy is a result of	<p>A. First law of thermodynamics</p> <p>B. Second law of thermodynamics</p> <p>C. Third law of thermodynamics</p> <p>D. Zeroth law of thermodynamics</p>