

PPSC Physics Topic 3 Thermal Properties of Matter

Sr	Questions	Answers Choice
1	The term used for heat capacity per unit mass is.	A. Latent heat B. Specific heat C. Energy density D. Specific energy
2	In general work done on or by a gas depends on.	A. The initial state only B. The final state only C. The initial and final states D. The initial state the final state and the path
3	Efficiency of a Carnot engine can never be 1 or 100% unless cold reservoir is at absolute temperature.	A. 0 K B. 100 K C. 273 K D. 373 K
4	Significant motion for the molecules of a monoatomic gas is.	A. Rotatory B. Vibratory C. Translatory D. Random
5	The temperature of a certain substance in Celsius scale of temperature is 800 °C in Kelvin scale it is.	A. 173 K B. 931 K C. 1073 K D. 1193 K
6	The phenomenon of Brownian motion shows that	A. Molecules exist and can be seen as bright dots moving about B. Molecules moves about randomly at high speeds C. Smoke particles behaves as molecules D. Smoke particles can be used as models of air molecules.
7	Which of the following gases has the maximum rms speed at STP.	A. O ₂ B. H ₂ C. N ₂ D. CO ₂
8	The pressure of a gas is directly proportion to	A. Mean velocity of the molecules B. Mean square velocity of the molecules C. Root mean square velocity of the molecules D. Instantaneous velocity of the molecules
9	If two gases have same reduced pressure volume and temperature it is according to	A. Boyle's law B. Charles law C. Law of corresponding state D. Zeroth law
10	During solidification the temperature.	A. Remains constant at the freezing point B. Increases at the freezing point C. Decreases at the freezing point D. Decreases at the melting point
11	The mechanical equivalent of heat is.	A. Physical quantity B. Constant C. Conversion factor D. Zero
12	The SI unit of heat capacity is.	A. kg J B. Kg J-1 C. J K-1 D. Kg J-1 K-1
13	In one cycle of a steam engine there are how many dead centres.	A. 1 B. 2 C. 3 D. zero
		A. Volume

14	Mean free path of gas molecules is inversely proportional to its.	B. Pressure C. Temperature D. Weight
15	On which parameter, the heat capacity of a material depends upon.	A. Density of the material B. Specific heat of the material C. Temperature of the material D. Structure of the material
16	The practical efficiency of a heat engine is	A. 25% to 30.5 % B. 35% to 45% C. 30% to 45% D. 15% to 25%
17	Below which temperature gas can be liquified by increasing its pressure.	A. Natural temperature B. Boyle temperature C. Critical temperature D. Absolute zero
18	The thermal inertia of a thermodynamic system is known as its.	A. Entropy B. Enthalpy C. Isothermal conduction D. Adiabatic conduction
19	A diatomic gas contains only	A. Translational K.E. B. Rotational K.E. C. Vibrational K.E. D. All of these
20	Which is the heat transfer mode between an object and its environment due to circular fluid motion.	A. Conduction B. Convection C. Radiation D. Mass transfer