

## PPSC Physics Topic 3 Thermal Properties of Matter

Sr	Questions	Answers Choice
1	What is the internal energy of a mono atomic ideal gas.	A. Potential only B. Parity kinetic and parity potential C. Kinetic only D. Neither kinetic nor potential
2	The specific heat capacity of the body depends upon.	A. the heat given to it B. Mass of the body C. Temperature raised D. Material of the body
3	Temperature of a gas is related to.	A. Total K.E. of the gas molecules B. The K.E. of the centre of mass of the gas C. The P.E. of the centre of mass of the gas D. Total K.E. of the molecules w.r.t the centre of mass of gas
4	If pressure and temperature of an ideal gas is doubled and volume is halved, the number of the gas molecules.	A. Become half B. Remain constant C. Become double D. Become three times
5	In ideal gas equation $PV = nRT$ , R is	A. Universal gas constant B. Avogadro's number C. Plank's constant D. Gravitational constant
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 $0 <sup>o</sup>C$
7	A heat engine with 100% efficiency would have to.	A. Do no work B. Be at uniform temperature C. Use no heat D. Discharge of $0 <sup>o</sup>C$
8	Advantage of using gases as thermometric substrates is taht	A. Gases have a small coefficient of expansion B. Expansion of gases is irregular C. Gases can be obtained in pure form D. Gases have a large coefficient of expansion.
9	Which quantity is common for systems in thermal equilibrium.	A. Heat B. Temperature C. Momentum D. Specific heat
10	The specific heat of an ideal gas values as	A. To B. T1 C. T2 D. T3
11	Under steady state the temperature of a body	A. Increase's with time B. Decreases with time C. Does not change with time D. None of the above
12	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
13	Gas exert pressure on walls of the vessel because gas molecules.	A. Posses momentum B. Have finite volume C. Collide with each other D. Obey gas laws
		A. Friction in the engine

14	The ideal thermal efficiency of a cyclic heat engine is limited by	B. Amount of heat in the engine C. Difference between input temperature and output temperature. D. Amount of work
15	First law of thermodynamics is a	A. Boyle 's law B. Charles' law C. Law of energy conservation D. Steffen Boltzmann law
16	How do solar heat and light reach the Earth.	A. By radiation B. By convection C. By conduction D. By conduction and convection
17	According to kinetic theory of gases one assumes that the collisions between molecules are.	A. Perfectly elastic B. Perfectly inelastic C. Partly elastic D. Partly inelastic
18	The zero point of Kelvin scale is called.	A. Critical point B. Terminal point C. Absolute zero D. Mid point
19	In free expansion of a gas. the internal energy of the system.	A. Increases B. Descreases C. Remain unchanged D. Becomes infinite
20	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