

MDCAT Physics Chapter 8 Heat and Thermodynamics Online Test

Sr	Questions	Answers Choice
1	The relationship between Boltzmann constant K with R and N_A is given as:	A. $k = RN_A$ B. $k = R/N_A$ C. $k = NR/N_A$ D. None of these
2	As the working substance of a heat engine completes a cycle, there is no change in:	A. Internal energy B. Pressure C. Volume D. All of these
3	The rate of change of momentum of a molecule is equal to:	A. Pressure B. Work C. Density D. Force
4	The ratio of output work per cycle to input energy per cycle is called:	A. Entropy B. Internal energy C. Efficiency D. None of these
5	The law of thermodynamics which discusses the condition under which heat energy is converted into an equivalent amount of work is:	A. 1st B. 2nd C. 3rd D. None of these
6	Only those processes are probable to take place for which entropy of the system:	A. Increases B. Remains constant C. Both A and B are correct D. None of above
7	Brownian motion confirms the truth of :	A. Wave theory of light B. Boyle's law C. Kinetic theory of gases D. Adiabatic process
8	Thermal radiations are a type of:	A. Mechanical waves B. Electromagnetic waves C. Alpha rays D. Electrons
9	First law of thermodynamics is merely a statement of law of conservation of:	A. Energy B. Angular momentum C. Change D. Linear momentum
10	The temperature scale approved in SI units is:	A. Celsius scale B. Kelvin scale C. Fahrenheit scale D. None of these
11	Number of spark plugs needed in diesel engine is:	A. Four B. Five C. Six D. None of these
12	Pressure may be defined as _____ per second per unit area:	A. Change in force B. Change in momentum C. Change in energy D. Work done
13	Truth of kinetic energy theory is confirmed by:	A. Diffusion of gases B. Brownian motion C. Both A and B D. None of these
14	The nature of thermal radiation is smaller to:	A. Ultraviolet rays B. Light rays C. Both of them D. None of these
15	The nature of thermal radiation is similar to:	A. Ultraviolet rays B. Light rays C. Both of them D. None of them

16	Change in momentum per second is:	A. Product force and time B. Product of pressure and area C. Ratio of pressure and area D. None of these
17	Carnot cycle is:	A. Reversible B. Irreversible C. Sometimes A, Sometimes B D. None of these
18	A process in which no heat enters or leaves the system is called.	A. Adiabatic process B. Isothermal process C. Isochoric process D. None of these
19	The motion of molecules in gases is:	A. Orderly B. Random C. Circular D. All of these
20	No of spark plugs needed in diesel engine is:	A. Four B. Five C. Six D. None of these
