MDCAT Physics Chapter 8 Heat and Thermodynamics Online Test

Sr	Questions	Answers Choice
1	The law of thermodynamics which discusses the condition under which heat energy is converted into and equivalent amount of work is:	A. 1st B. 2nd C. 3rd D. None of these
2	The efficiency of a particle heat engine:	A. can be 100% B. Cannot be 100% C. Is always zero D. None of these
3	A gas which strictly obeys the gas laws under all conditions of temperatures and pressure is called:	A. Ideal gas B. Inert gas C. Real gas D. None of these
4	When a gas is compressed:	A. Its internal energy decreases B. Its temperature decreases C. Its temperature increases D. None of these
5	Steam engine is:	A. An optical system B. A thermal system C. A thermodynamic system D. None of these
6	Real gases strictly obey gas laws at:	A. High pressures and low temperatures B. Low pressures and high temperatures C. High pressures and & temperatures D. None of these
7	Petrol engine coverts _____ of available heat energy into work.	A. 20% to 25% B. 25% to 30% C. 30% to 35% D. 35% to 40%
8	The pressure exerted on the walls on the vessel by gas molecules is defined as:	A. Force per unit volume B. Energy per unit area C. mass per unit volume D. None of these
9	If a molecule with momentum mv strikes a wall and rebound then the change in momentum will be:	A. -2 mv B. Zero C. 2 mv D. mv
10	Which of the following does not have the same units:	A. Work B. Heat C. Kinetic energy D. Power
11	In thermodynamics, the change in internal energy depends upon:	A. The path taken between initial and final states B. The initial state only C. The final state only D. Initial and final states
12	One degree of thermodynamics scale of temperature is called:	A. Celsius B. Fahrenheit C. Kelvin D. Radian
13	The value of universal gas constant R is:	A. 8.314 J/K mole K B. 8314 J/ mole K C. 8.314 J/ mole K D. None of these
14	The motion of molecules in gases i:	A. Orderly B. Random C. Circular D. All of these

15	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
16	In an ideal gas, the molecules have:	A. Kinetic energy only B. Potential energy only C. Both KE and PE D. None of these
17	Tick which of the following is not state variable:	A. Heat energy B. Pressure C. Entropy D. Volume
18	No entropy change is associated with:	A. Isothermal B. Adiabatic process C. Isobaric process D. None of them
19	In which process, the change in internal energy of the system of zero:	A. Isochoric process B. isobaric process C. Adiabatic process D. Isothermal process
20	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