MDCAT Physics Chapter 8 Heat and Thermodynamics Online Test

Sr	Questions	Answers Choice
1	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
2	At constant temperature, if the density of the gas is increased, its pressure will:	A. Decrease B. Increase C. Remain unchanged D. None of these
3	A certain engine coverts 20% of available heat energy into work. Then its efficiency will be:	A. 20% B. 80% C. 50% D. None of these
4	No of spark plugs needed in diesel engine is:	A. Four B. Five C. Six D. None of these
5	In the theory of dimensional analysis, heat may be properly represented by:	A. ML²T⁻² B. MT⁻² C. ML⁻¹T⁻¹ D. None of these
6	The efficiency of a particle heat engine:	A. can be 100% B. Cannot be 100% C. Is always zero 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	While dealing with the processes i thermodynamics, the working substances is usually:	A. Oxygen gas B. Hydrogen gas C. Ideal gas D. None of these
9	The rate of change of momentum of a molecule is equal to:	A. Pressure B. Work C. Density D. Force
10	The motion of molecules in gases i:	A. Orderly B. Random C. Circular D. All of these
11	In which process the change in internal energy of the system is zero:	A. Isochoric process B. Isobaric process C. Adiabatic process D. Isothermal process
12	The equation PVr = Constant applies to:	A. Isothermal process B. Adiabatic process C. Isobaric process D. None of these
13	First law of thermodynamics is merely a statement of law of conversation of:	A. Energy B. Angular momentum C. Change D. Linear momentum
14	If the temperature difference between hot and cold body is greater the heat engine is:	A. Not efficient B. Less efficient C. More efficient D. NOne of above
15	Truth of kinetic energy theory is confirmed by:	A. Diffusion of gases B. Brownian motion C. Both A and B D. None of these

16	Avogadro number is known as number of molecules in:	A. One kg of a substance B. Unit volume of a substance C. One mole of a substance D. None of these
17	Steam engine is:	A. An optical system B. A thermal system C. A thermodynamic system D. None of these
18	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
19	No entropy change is associated with:	A. Isothermal B. Adiabatic process C. Isobaric process D. None of them
20	If temperature of the sink is decreased, efficiency of a carnot engine.	A. Remains constant B. Decreases C. Increases D. None of these