MDCAT Physics Chapter 8 Heat and Thermodynamics Online Test

Sr	Questions	Answers Choice
1	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
2	When heat is added to the system, the entropy change is:	A. Positive B. Negative C. Zero D. None of these
3	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
4	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
5	Steam engine is:	A. An optical system B. A thermal system C. A thermodynamic system D. None of these
6	Truth of kinetic energy theory is confirmed by:	A. Diffusion of gases B. Brownian motion C. Both A and B D. None of these
7	The equation PVr = Constant applies to:	A. Isothermal process B. Adiabatic process C. Isobaric process D. None of these
8	Which of the following does not have the same units:	A. Work B. Heat C. Kinetic energy D. Power
9	The efficiency of a practical heat engine:	A. Can be 100% B. Can not be 100% C. Is always Zero D. None of these
10	The equation W = _____ U represents:	A. Thermal process B. adiabatic process C. Isobaric process D. None of these
11	Brownian motion confirms the truth of :	A. Wave theory of light B. Boyle's law C. Kinetic theory of gases D. Adiabatic process
12	Carnot cycle is:	A. Reversible B. Irreversible C. Sometimes A, Sometimes B D. None of these
13	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
14	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
		A. Avogadro number N_A

15	The number of molecules in one mole of gas is equal to:	B. Gas constant R C. Boltzmann constant k D. None of these
16	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
17	The ideal gas obey gas law at:	A. Low tempratures and high pressures B. High temperatures and low pressures C. All temperatures and pressures D. None of these
18	Absolute zero is considered as that temperature at which:	A. All liquids become gases B. All gases become liquids C. Water freezes D. None of these
19	At constant temperature, if the volume of a given mass of a gas is doubled, then the density of gas becomes:	A. Double B. Remains constant C. Half D. None of these
20	The temperature at which all the gases become liquid is called:	A. 273 K B. -273 K C. Absolute Zero D. Both (B) and (C)