ECAT Pre General Science Physics Chapter 11 Heat & Thermodynamics

Sr	Questions	Answers Choice
1	In the formula P = N_0KT, N_0denotes:	A. Number of molecules per unit per volume B. Number of moles C. Number of molecules D. None of these
2	Carnot heat engine only used	A. isothermal processes B. adiabatic processes C. both of them D. none of them
3	If denotes the total number of molecules in cubic vessel such that m is mass of each milecule and l is length of each side of vessel, then mN/l^3gives the:	A. Force B. Density C. Work done D. Pressure
4	The behaviour of gases is well accounted by the kinetic theory based on	A. microscopic approach B. macroscopic approach C. both of them D. none of them
5	If R is gas constant for 1 gram mole, $C_p$and $C_v$are specific heat for a solid then	A. C_p- C_v= R B. C_p- C_{v < R} C. C_p- C_{v = 0} D. C_p- C_{v > R}
6	The disorder in the system increases due to the	A. removal of heat B. addition of heat C. removal or addition of heat D. none of them
7	In an ideal gas, the molecules have:	A. Kinetic energy only B. Potential energy only C. Both KE and PE D. None of these
8	The Boltzman constant has the value	A. 1.38 x 10⁻²³JK⁻¹ B. 1.28 x 10⁻²³JK⁻¹ C. 1.38 x 10⁻²⁶JK⁻¹ D. 1.28 x 10⁻²⁶JK⁻¹
9	Pressure may be define as _____ per second per unit area:	A. Change in force B. Change in momentum C. Change in energy D. Work done
10	In thermodynamics, internal energy is the function of	A. temperature B. pressure C. state D. none of them
11	When two objects are rubbed together, their internal energy	A. remains same B. decreases C. remains the same then decreases D. increases
12	Since the absolute scale is independent of the property of the working substance, hence, can be applied at	A. very high temperature B. very low temperature C. any one of them D. none of them
13	Electromagnetic waves emitted by hot bodies are called:	A. Photoelectrons B. Alpha rays C. Thermal radiation D. None of these
		A. 0 J

14	If 42 J heat is transferred to the system and the work done by the system is 32 J then what will be the change in internal energy	B. 2 J C. 5 J D. 10 J
15	When two objects come to common temperature, the body is said to be in:	A. Static equilibrium B. Dynamic equilibrium C. Thermal equilibrium D. None of these
16	The curve representing an isothermal process is called	A. adiabat B. isotherm C. fixed temperature D. none of them
17	If a process cannot be retraced in the backward direction by reversing the controlling factors, it is	A. a reversible process B. an irreversible process C. any one of them D. both of them
18	The heat required to raise the temperature of one mole of the gas through 1 K at constant volume is called	A. heat capacity B. specific heat capacity C. molar specific heat D. molar specific heat at constant volume
19	The efficiency of diesel engine is	A. 25% B. 25 - 30% C. 35% D. 35 - 40%
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