ECAT Physics Chapter 11 Heat & Thermodynamics

Sr	Questions	Answers Choice
1	In case of an ideal gas, the P.E associated with its molecule is	A. maximum B. zero C. minimum D. not fixed
2	Pressure of a gas at constant volume is proportion to	A. Total energy of gas B. Average P.E to molecules C. Average K.E of molecules D. Total internal energy of gas
3	The volume of universal gas constant R is:	A. 8.314 J/K mole K B. 8314 J/K mole K C. 8.314 J/mole K D. None of these
4	In an adiabatic expansion, the temperature of the gas	A. increases B. becomes zero C. decreases D. decreases rapidly
5	If denotes the total number of molecules in cubic vessel such that m is mass of each milecule and I is length of each side of vessel, then mN/l^3 gives the:	A. Force B. Density C. Work done D. Pressure
6	Maximum density of H_2O is at the temperature	A. $32°F$ B. $39.2°F$ C. $42°F$ D. $4°F$
7	Melting point of ice	A. Increases with increasing pressure B. Decreases with increasing pressure C. Is independent of pressure D. Is proportional to pressure
8	The volume of a gas will be double of what it is at $0°C$ (pressure remaining constant) at	A. 546 K B. 273 K C. $546°C$ D. $273°C$
9	In all natural processes where heat flows from one system to another, there is always a net	A. decrease in entropy B. increase in entropy C. decrease or increase in entropy D. none of them
10	Which quantity is important in stating the entropy of the system	A. initial entropy B. final entropy C. change in entropy D. none of them
11	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
12	While deriving the equation for pressure of a gas we consider the	A. rotational motion of molecules B. vibrational motion of molecules C. linear motion of molecules D. all of them
		A. Temperature and pressure must be doubled

13	If the volume of the gas is to be increased by 4 times, then	B. At constant P the temperature must be increased by 4 times C. At constant T the pressure must be increased by four times D. It cannot be increased
14	The unit of thermodynamical scale is	A. centigrade B. fahrenheit C. kelvin D. none of them
15	A process in which no heat enters or leaves the system is called	A. isochoric process B. isothermal process C. adiabatic process D. none of them
16	If water in a closed bottle is taken up to the moon and opened, the water gets	A. Freeze B. Boiled C. Dissociated into O_2 and H_2 D. Evaporated
17	The kinetic energy of one molecule of a gas at normal temperature and pressure will be (k = 8.31 J/mole K) :	A. 1.7×10^3 J B. 10.2×10^3 J C. $3..4 \times 10^3$ J D. 6.8×10^3 J
18	A process which can be retraced in exactly reverse order, without producing any change in the surroundings is called	A. reversible process B. irreversible process C. any one of them D. none of them
19	In an adiabatic process the work is done at the expense of the	A. energy supplied to the system B. energy gained from the surroundings C. internal energy D. none of them
20	At absolute temperature, the kinetic energy of the molecules	A. Becomes zero B. Becomes maximum C. Becomes minimum D. Remain constant