

ECAT Physics Chapter 11 Heat & Thermodynamics

Sr	Questions	Answers Choice
1	Good absorbers of heat are	A. Poor emitters B. Non emitters C. Good emitters D. Highly polarized
2	Boyle's law is applicable in	A. Isochoric process B. Isothermal process C. Isobaric process D. Isotonic process
3	A gas is compressed adiabatically till its temperature is double. The ratio of its final volume to initial volume will be	A. 1/2 B. More than 1/2 C. Less than 1/2 D. Between 1 and 2
4	First law of thermodynamics tells us that heat energy can be converted into equivalent amount of work, but it is silent about	A. how heat is absorbed B. how heat extracted C. how this conversion takes place D. none of them
5	In the formula P = N_0KT , N_0 denotes:	A. Number of molecules per unit per volume B. Number of moles C. Number of molecules D. None of these
6	Amount of heat required to raise the temperature of a body through 1 K is called its	A. Specific heat B. Water equivalent C. Thermal capacity D. Entropy
7	For the working of a heat engine, there must be	A. a source of heat at high temperature B. a sink at low temperature C. both of them D. none of them
8	On the power stroke, a spark fires the mixtures causing a rapid increase in pressure and temperature and the burning mixture expands	A. adiabatically B. isothermally C. isochorically D. isobarically
9	The coefficient of linear expansion of iron is 0.000011 per°K. An iron rod is 10 metre long at 27°C. The length of the rod will be decreased by 1.1 mm when the temperature of the rod changes to	A. 0 °C B. 10 °C C. 17 °C D. 20 °C
10	A real gas can be approximated to an ideal gas at	A. Low density B. High pressure C. High density D. Low temperature
11	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/I ³ gives the:	A. Force B. Density C. Work done D. Pressure
12	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	A. 0 J B. 2 J C. 5 J D. 10 J
13	The rate of change of momentum of a molecule is equal to:	A. Pressure B. Work C. Density D. Force

14	Hotness and coldness of an object is represented in terms:	A. Heat B. Temperature C. Chemical energy D. None of these
15	The length of a metallic rod is 5 meter at 100°C. The coefficient of cubical expansion of the metal will be	A. 2.0 x 10 ⁻⁵ / °C B. 4.0x10 ⁻⁵ / °C C. 6.0x10 ⁻⁵ / °C D. 2.33x10 ⁻⁵ / °C D. 2.33x10 ⁻⁵ /cspan style="font-family: arial, sans-serif; font-size: small; color: rgb(84, 84, 84);">°C
16	First law of thermodynamics is consequence of conservation of	A. Work B. Energy C. Heat D. All of these
17	The pressure of gas everywhere inside the vessel will be the same provided the gas is of	A. Non-uniform density B. uniform density C. high density D. low density
18	The efficiency of carnot engine cannot be 100% or one unless cold reservoir is at	A. 100 K B. 273 K C. 0 K D273 K
19	Triple point of water is	A. 273.16 °F B. 372.16K C. 273.16 °F D. 273.16
20	The unit of thermodynamical scale is	A. centigrade B. fahrenheit C. kelvin D. none of them