ECAT Physics Chapter 11 Heat & Thermodynamics Online Test

Sr	Questions	Answers Choice
1	Heat travels through vacuum by	A. Conduction B. Convection C. Radiation D. Both A and B
2	For making cooking utensils, which of the following pairs of properties is most suited?	A. Low specific heat and high conductivity B. Low specific heat and low conductivity C. High specific heat and high conductivity D. High specific heat and low conductivity
3	If a liquid is heated in weightlessness, the heat is transmitted through	A. Conduction B. Convection C. Radiation D. Neither, because the liquid cannot be heated in weightlessness
4	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. $20°C$
5	Two metal rods A and B have their initial lengths in the ratio 2 : 3 and coefficients of linear expansion in the ratio 4 : 3. When they are heated through same temperature difference the ratio of their linear expansion is	A. 1 : 2 B. 2 : 3 C. 3 : 4 D. 8 : 9
6	The length of a metallic rod is 5 meter at 100°C. The coefficient of cubical expansion of the metal will be	A. $2.0 \times 10^{-5}/°C$ B. $4.0 \times 10^{-5}/°C$ C. $6.0 \times 10^{-5}/°C$ D. $2.33 \times 10^{-5}/°C$
7	Hydrogen and helium of same volume V at same temperature T and same pressure P are mixed to have same volume V. The resulting pressure of the mixtures will be	A. R/2 B. P C. 2P D. Depending on the relative mass of the gases
8	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
9	At constant temperature, on increasing the pressure of a gas by 5%, its volume. The final temperature of the gas will be	A. 81 K B. 355 K C. 627 K D. $627°C$
10	On colliding in a closed container, the gas molecules	A. Transfer momentum to the walls B. Momentum becomes zero C. M...

| | | C. Move in opposite directions |
| | | D. Perform Brownian motion |

11	At absolute temperature, the kinetic energy of the molecules	A. Becomes zero B. Becomes maximum C. Becomes minimum D. Remain constant
12	Pressure exerted by a gas is	A. Independent of density of the gas B. Inversely proportional to the density of the gas C. Directly proportional to the square of the density of the gas D. Directly proportional to the density of the gas
13	The temperature of gas is produced by	A. At potential energy of its molecules B. The kinetic energy of its molecules C. The attractive force between its molecules D. The repulsive force between its molecules
14	If the volume of the gas is to be increased by 4 times, then	A. Temperature and pressure must be doubled 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
15	A real gas can be approximated to an ideal gas at	A. Low density B. High pressure C. High density D. Low temperature