

MDCAT Physics Chapter 8 Heat and Thermodynamics Online Test

Sr	Questions	Answers Choice
1	No of spark plugs needed in diesel engine is:	A. Four B. Five C. Six D. None of these
2	Electromagnetic waves emitted by hot bodies are called:	A. Photoelectrons B. Alpha rays C. Thermal radiation D. None of these
3	Avogadro number is known as number of molecules in:	A. One kg of a substance B. Unit volume of a substance C. One mole of a substance D. None of these
4	Pressure may be defined as _____ per second per unit area:	A. Change in force B. Change in momentum C. Change in energy D. Work done
5	The nature of thermal radiation is similar to:	A. Ultraviolet rays B. Light rays C. Both of them D. None of them
6	Diesel engine converts _____ of available heat energy into work.	A. 20% to 25% B. 25% to 30% C. 30% to 35% D. 35% to 40%
7	The relationship between Boltzmann constant K with R and N_A is given as:	A. $k = R/N_A$ B. $k = R/N_A$ C. $k = R/N_A$ D. None of these
8	If the temperature difference between hot and cold body is greater the heat engine is:	A. Not efficient B. Less efficient C. More efficient D. None of above
9	The law of thermodynamics which discusses the condition under which heat energy is converted into an equivalent amount of work is:	A. 1st B. 2nd C. 3rd D. None of these
10	Carnot cycle is:	A. Reversible B. Irreversible C. Sometimes A, Sometimes B D. None of these
11	According to Boyle's law, volume of a given mass of a gas is	A. Inversely proportional mass at constant pressure B. Directly proportional to pressure at constant temperature C. Inversely proportional pressure at constant temperature D. None of these
12	The ideal gas obeys gas law at:	A. Low temperatures and high pressures B. High temperatures and low pressures C. All temperatures and pressures D. None of these
13	Petrol engine converts _____ of available heat energy into work.	A. 20% to 25% B. 25% to 30% C. 30% to 35% D. 35% to 40%
14	The motion of molecules in gases is:	A. Orderly B. Random C. Circular D. All of these

15	Only those processes are probable to take place for which entropy of the system:	A. Increases B. Remains constant C. Both A and B are correct D. None of above
16	A gas which strictly obeys the gas laws under all conditions of temperatures and pressure is called:	A. Ideal gas B. Inert gas C. Real gas D. None of these
17	A certain engine converts 20% of available heat energy into work. Then its efficiency will be:	A. 20% B. 80% C. 50% 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	What will be efficiency of Carnot engine when it is operated between the temperatures 47°C and 127 °C:	A. Reversible B. Irreversible C. Sometimes A and B D. None of these
20	A process in which no heat enters or leaves the system is called.	A. Adiabatic process B. Isothermal process C. Isochoric process D. None of these