

ECAT Physics Chapter 11 Heat & Thermodynamics Online Test

Sr	Questions	Answers Choice
1	Efficiency of carnot engine is independent of the	A. temperature of sink B. temperature of source C. nature of the working substances D. none of them
2	The highest efficiency of a heat engine whose low temperature is 17°C and the high temperature is 200°C is	A. 70% B. 100% C. 35% D. 38%
3	When the temperature of source and sink of a heat engine become equal entropy change will be	A. Zero B. Max C. Min D. -ve
4	During the whole carnot cycle	A. Thermal equilibrium is maintained B. mechanical equilibrium is maintained C. both the thermal and mechanical equilibriums maintained D. both the thermal and mechanical equilibrium is not maintained
5	A carnot cycle consists of	A. One step B. two step C. three steps D. four steps
6	Carnot heat engine only used	A. isothermal processes B. adiabatic processes C. both of them D. none of them
7	Sadi carnot described an ideal heat engine in	A. 1820 B. 1840 C. 1860 D. 1880
8	We cannot utilize the heat contents of oceans and atmosphere because	A. there is no reservoir at the same temperature B. there is no reservoir at the temperature lower than any one of two C. there is no reservoir at the temperature higher than any one of two D. none of them
9	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
10	According to the second law, which is must to produce work	A. a source contains a large amount of heat energy B. two sources at the same temperature C. two sources at the different temperatures D. a source contains a small amount of energy
11	It is impossible to devise a processes which may convert heat, extracted from a single reservoir, entirely into work without leaving any change in the working system. This is the statement of	A. Clausius statement of second law B. Kelvin's statement of second law C. Clausius statement of first law D. Kelvin's statement of first law
12	The percentage of available heat energy converted into work by a diesel engine is roughly	A. 35 % B. 40 % C. 35 - 40 % D. 25 %
13	The percentage of available heat energy converted into work by a petrol engine is roughly	A. 35 % B. 40 % C. 35 - 40 % D. 25 %

13. The efficiency of a Carnot engine is 35%. The temperature of the cold reservoir is 25°C. The temperature of the hot reservoir is		C. 35 to 40 °C D. 25 °C
14	The second law of thermodynamics is concerned with the circumstances in which	A. heat can be converted into work B. direction of flow of heat C. none of them D. both of them
15	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