

## MDCAT Physics Chapter 8 Heat and Thermodynamics Online Test

Sr	Questions	Answers Choice
1	Real gases strictly obey gas laws at:	A. High pressures and low temperatures B. Low pressures and high temperatures C. High pressures and & temperatures D. None of these
2	A process which is carried at constant temperature and Boyle's law can be applied is called:	A. Adiabatic process B. Isothermal process C. Isochoric process D. None of these
3	Carnot cycle is:	A. Reversible B. Irreversible C. Sometimes A, Sometimes B D. None of these
4	Thermal radiations are a type of:	A. Mechanical waves B. Electromagnetic waves C. Alpha rays D. Electrons
5	Number of spark plugs needed in diesel engine is:	A. Four B. Five C. Six D. None of these
6	Carnot engine is _____ heat engine.	A. A reversible B. An irreversible C. An ideal D. Both A and C
7	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%
8	For a gas obeying Boyle's law, if the pressure is doubled the volume becomes:	A. One half B. Double C. Four times D. None of these
9	In the theory of dimensional analysis, heat may be properly represented by:	A. $ML^{sup>2}$ B. $MT^{sup>2}$ C. $ML^{-1}T^{-1}$ D. None of these
10	No of spark plugs needed in diesel engine is:	A. Four B. Five C. Six D. None of these
11	When a gas is compressed:	A. Its internal energy decreases B. Its temperature decreases C. Its temperature increases D. None of these
12	In an ideal gas, the molecules have:	A. Kinetic energy only B. Potential energy only C. Both KE and PE D. None of these
13	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
14	The ideal gas obey gas law at:	A. Low temperatures and high pressures B. High temperatures and low pressures C. All temperatures and pressures D. None of these

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15 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

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16 The value of universal gas constant R is:

A. 8.314 J/K mole K  
B. 8314 J/ mole K  
C. 8.314 J/ mole K  
D. None of these

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17 The motion of molecules in gases is:

A. Orderly  
B. Random  
C. Circular  
D. All of these

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18 The equation  $W = \underline{\hspace{2cm}} \square U$  represents:

A. Thermal process  
B. adiabatic process  
C. Isobaric process  
D. None of these

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19 If P is the pressure and V is the volume, Then PV will represent:

A. Power  
B. Work  
C. Force  
D. None of these

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20 The temperature at which all the gases become liquid is called:

A. 273 K  
B. -273 K  
C. Absolute Zero  
D. Both (B) and (C)

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