

PPSC Physics Topic 3 Thermal Properties of Matter

Sr	Questions	Answers Choice
1	Thermodynamics concern its primary with the	A. Measurement of quantity of heat B. Physical effects of temperature changes C. Conversion of heat into other energy forms D. Behavior of gases
2	An inflated tyre suddenly bursts As a result of this temperature of the surrounding	A. Increases B. Decreases C. Remains constant D. May increase or decrease
3	Gas law $PV = \text{constant}$ is for	A. Adiabatic change B. Isothermal changes C. Isobaric changes D. Isochoric changes
4	According to kinetic energy of gases one assumes that the collisions between the molecules are.	A. Perfectly elastic B. Perfectly inelastic C. Partly elastic D. Partly inelastic
5	During an adiabatic gas expansion the environment	A. Serves as a heat sink B. Serves as a heat source C. Must be at a higher temperature than the gas D. Does not have to participate
6	The heat required to sublime one mole of the substance at standard temperature and pressure is called.	A. Latent heat B. Specific heat C. Heat of sublimation D. Heat capacity
7	No entropy change is associated with	A. Isothermal process B. Adiabatic process C. Isochoric process D. Isoteric process
8	Mean free path of gas molecules is inversely proportional to its.	A. Volume B. Pressure C. Temperature D. Weight
9	When a perfect gas is supposed to expand freely in an isolated vessel the gas has undergone.	A. An increase in pressure B. An increase in temperature C. A change in phase D. A change in entropy
10	What is the heat required in Kilo joules when the temperature of 100 g of copper is raised through 20 K. Specific heat capacity of copper is $0.4 \times 10^{-3} \text{ kg}^{-1} \text{ K}^{-1}$	A. 0.4 kJ B. 0.8 kJ C. 400 kJ D. 800 kJ
11	On which parameter internal energy of an ideal gas depends upon.	A. Volume B. Mass C. Pressure D. Temperature
12	What happens to Carnot efficiency if the source temperature increases.	A. Decreases B. Increases C. Remain the same D. Becomes zero
13	A cup of coffee at 80°C is left to cool to 30°C if the heat capacity of the cup and coffee is 2.0 kJ K^{-1} how much heat is released during the cooling.	A. 0.04 kJ B. 100 kJ C. 60 kJ D. 160 kJ
14	If the pressure of a gas is doubled, then its thermal conductivity will	A. Increases B. Decreases C. Remain constant D. Be zero
		A. Five times as much as mercury

15 A gas thermometer is more sensitive than a mercury thermometer because the expansion of gas for 1 o/c rise in temperature is.
B. Ten times as much as mercury
C. Twenty times as much as mercury
D. Hundred times as much as mercury

16 In general work done on or by a gas depends on.
A. The initial state only
B. The final state only
C. The initial and final states
D. The initial state the final state and the path

17 Absolute zero may be regarded as the temperature of which
A. Water freezes
B. All substances are solids
C. All gases become liquids
D. Molecular motioning a gas would ceases

18 In free expansion of a gas. the internal energy of the system.
A. Increases
B. Decreases
C. Remain unchanged
D. Becomes infinite

19 Which of the following in the best container for gas during adiabatic process.
A. Copper vessel
B. Thermos flask
C. Glass container
D. Wooden container

20 A heat engine can develop efficiency equal to 100% if the temperature of the sink is
A. Less than that of source
B. Equal to that of source
C. 0 K
D. 0 $^{\circ}$ C