

PPSC Physics Topic 3 Thermal Properties of Matter

Sr	Questions	Answers Choice
1	Which following properties of molecules of a gas is same for all gases at a particular temperature.	A. Momentum B. Mass C. velocity D. K.E.
2	The behavior of the gases that can be easily liquefied is like that of the.	A. Triatomic gases B. Ideal gases C. Van der Waals gases D. Diatomic gases
3	In four stroke cycle the crank makes	A. One complete revolution B. Two complete revolutions C. three complete revolutions D. Four complete revolutions
4	What is the internal energy of a mono atomic ideal gas.	A. Potential only B. Parity kinetic and parity potential C. Kinetic only D. Neither kinetic nor potential
5	Efficiency of a Carnot engine depends on	A. Temperature B. Pressure C. Volume D. The nature of working substance
6	A standard fixed point for calibrating a thermometer is.	A. Boiling point of water B. Melting point of ice C. Temperature of steam D. Triple point of water
7	If pressure and temperature of an ideal gas is doubled and volume is halved, the number of the gas molecules.	A. Become half B. Remain constant C. Become double D. Become three times
8	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
9	A given mass of air occupies 12 m ³ at normal atmospheric pressure if the pressure is increased to 4 times the original value without changing the temperature what volume will the air occupy.	A. 3 m ³ B. 6 m ³ C. 9 m ³ D. 12 m ³
10	What is the triple point of water.	A. 273.15 K B. 0 K C. 100 K D. 0 °C
11	Which thermometer is called spirit thermometer	A. Alcohol thermometer B. Mercury in glass thermometer C. Gas thermometer D. Radiation thermometer
12	The practical efficiency of a heat engine is	A. 25% to 30.5 % B. 35% to 45% C. 30% to 45% D. 15% to 25%
13	An ideal engine can be 100% efficient only if its exhaust temperature.	A. Equal to input temperature B. Less than input temperature C. More than input temperature D. 0 K
14	Which of the following pairs represent units of the same physical quantity.	A. Kelvin and joule B. Kelvin and calorie C. Newton and calorie D. Joule and calorie
15	In which given process does the system always return to the original thermodynamic state.	A. Cyclic B. Adiabatic C. isothermal D. Isobaric

16	How does heat transfer between objects.	A. From cold to hot objects B. From hot to cold objects C. By electromagnetic radiations D. From hotter to hottest objects.
17	Which quantity is common for systems in thermal equilibrium.	A. Heat B. Temperature C. Momentum D. Specific heat
18	An ice making machine extracts energy at the rate of 500 W The specific latent heat of fusion of ice is 300 kJ kg ⁻¹ . How long does it take to freeze 2 kg of water at 0 °C.	A. 120 s B. 150 s C. 1200 s D. 1500 s
19	In the free expansion of a perfect gas there is no.	A. work done B. Heat exchanged C. Internal energy changed D. All of the above
20	The actual gas can behave like an ideal gas at	A. Low density and high pressure B. High density and high pressure C. Low density and low pressure D. High density and low pressure