PPSC Physics Full Book

Sr	Questions	Answers Choice
1	First law of thermodynamics is a	A. Boyle 's law B. Charles' law C. Law of energy conservation D. Steffen Boltzmann law
2	Mean free path of gas molecules is inversely proportional to its	A. Volume B. Pressure C. Temperature D. Size
3	Gas law PV = constant is for	A. Adiabatic change B. Isothermal changes C. Isobaric changes D. Isochoric changes
4	In the free expansion of a perfect gas there is no.	A. work done B. Heat exchnged C. Internal energy changed D. All of the above
5	Identify the irreversible process	A. Explosion of a bomb B. Slow expansion of a gas C. Slow compression of a gas D. Slow compression of an eleastic spring
6	In an isobaric process there is no.	A. Pressure change B. Internal energy change C. Heat exchanged D. volume change or work done
7	The thermal inertia of a thermodynamic system is known as its.	A. Entropy B. Enthalpy C. Isothermal conduction D. Adiabatic conduction
8	In Isochoric process there is no	A. Work done B. Internal energy change C. Volume change or work done D. Heat exchanged
9	Significant motion for the molecules of a monoatomic gas is.	A. Rotatory B. Vibratory C. Translatory D. Random
10	Which one of the following gases posses maximum oot mean square velocity.	A. Hydrogen B. Oxygen C. Nitrogen D. Carbon dioxide
11	If the pressure in a closed vessel is reduced by drawing some gas the mean free path of the gas molecules.	A. Decreases B. Remains constant C. Increases D. First increases then decreases
12	if temperature eon Celsius scale is 50 oC the temperature on Fahrenheit scale will be.	A. 102 ^oF B. 108 ^oF C. 112 ^oF D. 122 ^oF
13	A given quantity of an ideal gas is at pressure P and temperature T What is the isothermal bulk modulus of the gas.	A. 2/3 P B. P C. 2P D. 3/2 P
14	The expression PV/KT represents.	A. Number of moles of the gas B. Number of molecules in the gas C. Total mass of the gas D. Density of the gas
15	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
16	If the specific latent heat of vaporization of oxygen is 214 kJ kg-1 how much heat will be absorbed when 3.0 kg of oxygen is boiled off at its boiling point.	A. 14 kJ B. 64 k J C. 140 kJ D. 642 k j
17	When a solid is melting the temperature remains constant even through heat is being supplied because the	A. Heat is being used to break up the intermolecular bonds B. Solid is not absorbing any heat C. Molecules are moving faster D. Molecules are farther a part
18	During solid ficain the temperature.	A. Remains constant at the freezing point B. Increases at the freezing point C. Decreases at the freezing point D. Decreases at the melting point
19	The law of equation of energy is applicable to the system whose constituents are.	A. At rest B. In orderly motion C. in random motion D. Moving at constant speed
20	What is the triple point of water.	A. 273 .15 K B. 0 K C. 100 K D. 0 oC
21	On which of the following the kinetic theory of gases is not applicable.	A. Water vapour B. Smoke particles C. Bound particles D. Free electrons
22	If the gas pressure is increased then its mean free path becomes.	A. More B. Zero C. Infinite D. Less
23	Below which temperature gas can be liquified by increasing its pressure.	A. Natural temperature B. Boyle temperature C. Critical temperature D. Absolute zero
24	If the number of gas molecules in a cubical vessel is increase from N to 3 N then its pressure and total energy will be.	A. Half B. Three times C. Double D. Four times
25	The highest efficiency of a heat engine whose low temperature is 17 oC and the high temperature of 200 oC is.	A. 20% B. 30% C. 35% D. 40%
26	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
27	In the gas equation PV =nRT , V is the volume of.	A. 1 g of gas B. 1 L of gas C. 1 mol of gas D. 1 kg of gas
28	The gas temperature is increased from 27 ^{O}C to 127 ^{O}C What is the ratio of mean kinetic energies.	A. 3/4 B. 4/3 C. 9/10 D. 10/9
29	The heat required to sublime one mole of the substance at standard temperature and pressure is called.	A. Latest heat B. Specific heat C. Heat of sublimation D. Heat capacity
30	Mean free path in a gas is the	A. Distance travelled by a molecule before hitting a wall B. Average distance travelled by a molecule in one second C. Average distance travelled between molecules between any two successive collisions D. Root mean square velocity