PPSC Physics Chapter 3 Thermal Properties of Matter

Sr	Questions	Answers Choice
1	Which law states that a change in the internal energy of a closed thermodynamic system is equal to the difference between the heat supplied to the system and teh amount of work by the system on the surrounding.	A. Zeroth law of thermodynamics B. First law of thermodynamics C. Second law of thermodynamics D. Third law of thermodynamics
2	A heat engine with 100% efficiency would have to.	A. Do no work B. Be at uniform temperature C. Use no heat D. Discharge of 0 ^oC
3	The follow of heat from hot body to cold body is an example of	A. Adiabatic process B. Isothermal process C. Reversible process D. Irreversible process
4	By definition a gas is said to be have undergone adiabatic compressing when	A. No heat exchange occurs between the gas and its surroundings B. The gas is compressed quickly C. The gas is compressed slowly D. The temperature of the gas remains constant
5	A diatomic gas contains only	A. Translational K.E. B. Rotational K.E. C. Vibrational K.E. D. All of these
6	A frictionless heat engine can be 100% efficient only if its exhaust temperature is	A. Equal to the input temperature B. Less than the input temperature C. 0 ^oC D. 0 K
7	Let at constant temperature the pressure of an ideal gas be doubled so that the new volume is.	A. Doubled the original volume B. Same as original volume C. Reduced to half the original volume D. Reduced to two times the original volume
8	Which of the following is the ideal gas equation.	A. PV -n RT B. P/V = n RT C. V/P = nR/T D. PV = T/nR
9	Which of the following is heat transfer by means of the emission or absorption of electromagnetic radiation such as sunshine.	A. Conduction or diffusion B. Convection C. Radiation D. Mass transfer
10	Which is the heat transfer mode between an object and its environment due to circular fluid motion.	A. Conduction B. Convection C. Radiation D. Mass transfer
11	The transfer of thermal energy between regions of matter due to a temperature gradient is called.	A. Conduction B. Radiation C. Convection D. Sublimation
12	The temperature of 1 kg of hydrogen gas is the same as that of 1 kg of helium gas if.	A. The gases have the same internal energy B. The gas molecules occupy equal volumes C. The gas molecules have the same root mean square speed D. The gas molecules have same mean translational K.E.
13	The temperature of a certain substance in Celsius scale of temperature is 800 ^{O}C in Kelvin scale it is.	A. 173 K B. 931 K C. 1073 K D. 1193 K
14	The SI unit of heat capacity is.	A. kg J B. Kg J-1

		C. J K-1 D. Kg J-1 K-1
15	One calorie equals to	A. 1.2 J B. 2.2 J C. 3.2 J D. 4.2 J
16	Which of the following is defined as the amount of heat required to raise the temperature of 1 g of water by 1 ^{O}C	A. Joule B. BTO C. Electron volt D. Calorie
17	Which law states that if two systems are in thermal equilibrium with a third system they are also in the thermal equilibrium with each other.	A. Third law of thermodynamics B. Second law of thermodynamics C. First law of thermodynamics D. Zeroth law of thermodynamics
18	Which of the following is the science of measuring the heat of chemical reactions or physical changes.	A. Thermometry B. Calorimetry C. Telemetry D. Photometry
19	An inflated tyre suddenly bursts As a result of this temperature of the surrounding	A. Increases B. Descreases C. Remains constant D. May increase or decrease
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