

PPSC Physics Topic 3 Thermal Properties of Matter

Sr	Questions	Answers Choice
1	If a gas does 10 J of external work while expanding then the change in internal energy is equal to.	A. 0 J B. 10 J C. -10 J D. 100 J
2	How many calories of heat are required to evaporate completely 1 g of ice at 0 °C	A. 120 calories B. 520 calories C. 720 calories D. 920 calories
3	Law of increase of entropy is a result of	A. First law of thermodynamics B. Second law of thermodynamics C. Third law of thermodynamics D. Zeroth law of thermodynamics
4	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
5	If the temperature of the source and sink are increased by same amount the efficiency of the engine.	A. Increases B. Decreases C. Remains unchanged D. May increase or decrease
6	Which of the following has maximum specific heat.	A. Glass B. Iron C. Brass D. Lead
7	Why can't a Carnot engine give 100% efficiency.	A. We cannot find ideal sources B. We cannot eliminate friction C. We cannot reach absolute zero temperature D. We cannot remove heat
8	The pressure of a gas is directly proportional to	A. Mean velocity of the molecules B. Mean square velocity of the molecules C. Root mean square velocity of the molecules D. Instantaneous velocity of the molecules
9	Efficiency of a Carnot engine depends on	A. Temperature B. Pressure C. Volume D. The nature of working substance
10	Which of the following measures how quickly the thermometer liquid rises mainly because it	A. Is colorless B. Is a bad conductor of heat C. Does not expand linearly D. Has a low boiling point
11	Which one of the following is an example of a reversible process.	A. Work done against friction B. Heat produced by current C. Melting of ice D. See back effect
12	The ratio of specific heat capacity to molar heat capacity of a body	A. Is a universal constant B. Depends upon the mass of the body C. Depends upon the molecular weight of the body D. Is dimensionless
13	How do solar heat and light reach the Earth.	A. By radiation B. By convection C. By conduction D. By conduction and convection
14	When a solid is melting the temperature remains constant even though 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 apart
15	Which of the following phenomenon gives evidence of the molecular structure of matter	A. Evaporation B. Diffusion C. Brownian movement D. All of the above
16	Thermodynamics primarily concerns	A. Measurement of quantity of heat B. Physical effects of temperature changes C. Conversion of heat into other energy forms D. Behavior of gases
17	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 kJ C. 140 kJ D. 642 kJ
18	The term used for heat capacity per unit mass is.	A. Latent heat B. Specific heat C. Energy density D. Specific energy
19	If volume of the gas doubled without changing its temperature the pressure of the gas is	A. Reduced to half of original value B. Not changed C. Reduced to one fourth of original value D. Doubled
20	Significant motion for the molecules of a monoatomic gas is.	A. Rotatory B. Vibratory C. Translatory D. Random