

## PPSC Physics Topic 3 Thermal Properties of Matter

Sr	Questions	Answers Choice
1	On increasing the temperature of source efficiency of Carnot engine.	A. Increase B. Decrease C. First increases and then decreases D. Does not change
2	What is the human body temperature in Celsius scale.	A. 30 oC B. 36.9 oC C. 98.4 oC D. 100 oC
3	The temperature which is the same in $^{\circ}\text{C}$ and $^{\circ}\text{F}$ is.	A. -20 B. -40 C. 20 D. 40
4	Temperature of a system remains constant in	A. Adiabatic process B. Isobaric process C. Isothermal process D. Isochoric process
5	The specific heat of an ideal gas values as	A. To B. $T_1$ C. $T_2$ D. $T_3$
6	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
7	To which law of thermodynamics, the concept of temperature is related to.	A. Zeroth law B. First law C. Second law D. Third law
8	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
9	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.
10	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 increases or decrease
11	When heat a supplied to a metallic sphere which one of the following changes will occur.	A. the mass of the sphere increases B. The volume of the sphere increases C. The density of the sphere increases D. The internal energy of the sphere increases
12	Net change in entropy of a system in a Carnot's cycle is	A. Positive B. Negative C. Zero D. Infinite
13	Two stem engine A and B have their sources at 900 K and 600 K and their sinks are at 450 K and 300 K respectively.	A. They are equally efficient B. A is less efficient than B C. a is more efficient than B D. Their efficiencies cannot be determined
14	The internal energy of monoatomic gas is.	A. $3/2 RT$ B. Independent of temperature C. In the form of K.E. D. Partially kinetic and partially

		potential
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	What kind of movement is dictated by the laws of thermodynamics?	A. Energy motion B. Heat work C. Light heat D. Energy light
17	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
18	A diatomic gas contains only	A. Translational K.E. B. Rotational K.E. C. Vibrational K.E. D. All of these
19	The flow of heat from hot body to cold body is an example of	A. Adiabatic process B. Isothermal process C. Reversible process D. Irreversible process
20	What is the SI unit for thermal conductivity?	A. $\text{W m}^{-1} \text{K}^{-1}$ B. $\text{W m}^{-2} \text{K}^{-2}$ C. $\text{W m}^{-3} \text{K}^{-1}$ D. $\text{J kg}^{-1} \text{K}^{-1}$