

## PPSC Physics Topic 3 Thermal Properties of Matter

Sr	Questions	Answers Choice
1	Which of the following thermometers is the most suitable for measuring rapidly varying temperature.	A. Thermocouple thermometer B. Mercury in glass thermometer C. Alcohol in glass thermometer D. Platinum resistance thermometer
2	When a liquid is heated retaining its liquid state then its molecules gain.	A. K.E. B. P.E C. Heat energy D. Chemical energy
3	In free expansion of a gas, the internal energy of the system.	A. Increases B. Decreases C. Remains unchanged D. Becomes infinite
4	The phenomenon of Brownian motion shows that	A. Molecules exist and can be seen as bright dots moving about B. Molecules move about randomly at high speeds C. Smoke particles behave as molecules D. Smoke particles can be used as models of air molecules.
5	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
6	What should be the shape of an ideal thermometer.	A. Spherical B. Cubical C. Cylindrical D. Rectangular
7	How solid hydrogen is obtained.	A. By cascade process B. By Joule-Kelvin effect C. By adiabatic expansion D. Lowering temperature below melting point
8	To which law of thermodynamics, the concept of temperature is related to.	A. Zeroth law B. First law C. Second law D. Third law
9	According to kinetic theory of gases one assumes that the collisions between the molecules are.	A. Perfectly elastic B. Perfectly inelastic C. Partly elastic D. Partly inelastic
10	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%
11	Difference between the molar heat capacity constant pressure and that at constant volume is equal to	A. Root mean square velocity B. Mean free path C. Boltzmann's constant D. Universal gas constant
12	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
13	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.
		A. It gains heat

14	Internal energy of a gas decreased when	B. Change in cycle C. Change in adiatic D. Change in reversible
15	In which given process does the system always return to the original thermodynamic state.	A. Cyclic B. Adiabatic C. isothermal D. Isobaric
16	Mean free path of gas molecules is inversely proportional to its.	A. Weight B. Temperature C. Pressure D. Volume
17	The thermal inertia of a thermodynamic system is known as its.	A. Entropy B. Enthalpy C. Isothermal conduction D. Adiabatic conduction
18	If the gas pressure is increased then its mean free path becomes.	A. More B. Zero C. Infinite D. Less
19	If we place our hand below a lighted lamp we feel warmer due to.	A. Conduction B. Convection C. Radiation D. None of these
20	At absolute zero of temperature.	A. The molecular energy is zero B. Molecules have translational K.E C. Molecules have rotational K.E. D. Molecules have maximum energy