

Unit 7

Thermal Properties of Matter

Sr. No.	Questions	A	B	C	D
1	How do the molecules in a solid behave?	Move randomly	Vibrate about their mean positions✓	Rotate and vibrate randomly at their own positions	Move in a straight line from hot to cold ends
2	What type of motion is of the molecules in a gas?	Linear motion	Random motion✓	Vibratory motion	Rotatory motion
3	Temperature of a substance is:	the total amount of heat contained in it	the total number of molecules in it	degree of hotness or coldness✓	dependent upon the intermolecular distance
4	Heat is the:	total kinetic energy of the molecules	the internal energy	work done by the molecules	the energy in transit✓
5	In Kelvin scale, the temperature corresponding to melting point of ice is:	zero	32	−273	+273 ✓
6	The temperature which has the same value on Celsius and Fahrenheit scale is:	−40 ✓	+40	+45	−45
7	Which one is a better choice for a liquid-in-glass thermometer?	Is colourless	Is a bad conductor	Expand linearly✓	Wets glass
8	One disadvantage of using alcohol in a liquid-in-glass thermometer:	it has large expansivity	it has low freezing point (−112°C)	it wets the glass tube✓	its expansion is linear
9	Water is not used as a thermometric liquid mainly due to:	colourless	a bad conductor of heat	non-linear expansion✓	a low boiling point (100°C)
10	A thermometer has a narrow capillary tube so that it:	quickly responds to temperature changes	can read the maximum temperature	gives a large change for a given temperature rise✓	can measure a large range of temperature
11	Which thermometer is most suitable for recording rapidly varying temperature?	Thermocouple thermometer✓	Mercury-in-glass laboratory thermometer	Alcohol-in-glass thermometer	Mercury-in-glass clinical thermometer