

Topical Worksheet

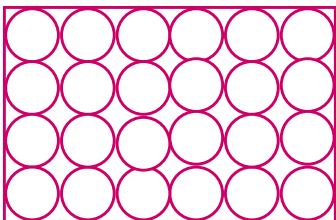
Chapter 7 Model of matter – The Particulate Nature of Matter

Suggested Answer

Section A

1	2	3	4	5
D	A	D	D	B

Section B

QN	Suggested Answers	Marks
1a	B	1
1b	E	1
1c	C	1
1d		1

2ai	Upon heating, the iron particles gain thermal energy [1] and vibrate more vigorously [1]. The particles move further apart [1] from one another, causing the volume of the iron ball to increase [1].	4
2aii	No [1]. When heated only the distance between particles change [1], the number and size of the particles remain the same.	2
2b	Cool the iron ball [1]. When cooled, particles will lose thermal [½] energy, vibrate less [½] vigorously and move closer [½] to one another, causing the volume to contract.	3

3a	30 °C	1
3b	60 °C	1
3c	At BC, melting takes place, so, the temperature remains constant during melting and boiling as thermal energy is used to overcome the forces of attraction between the particles.	2