

PARTICULATE NATURE OF MATTER

1. D

2. D

3. B

4. C

5.

(a) speck of light B1
 that moves haphazardly/randomly/jerkily/etc. B1 [2]
 (b) randomness of collisions would be 'averaged out' B1
 so less (haphazard) movement B1 [2]
 (do not allow 'more massive so less movement')

6.

ans

(a)	Safety precaution liquid might overflow & ignitor vapour might ignite ANY TWO VALID COMMENTS	1 + 1	2
(b) (i)	cooling	1	
	solidifying	1	
	exothermic	1	
(ii)	37 °C	1	
(iii)	single melting temperature	1	
(iv)	room temperature	1	6

Total 8

7. (a) (i)	A description to include: 1. particles moving; 2. in all directions/randomly / or implied by description (each other / walls); [Arrows on diagram acceptable]	2
(ii)	An explanation to include: 1. particles hit/collide with container walls; 2. producing a force;	2
(iii)	pressure would increase/get bigger/larger;	1
(b)	statements 2, 3 and 4 ticked ; ; ; [If more than 3 ticked then deduct 1 mark for each error]	3
(c)	An explanation to include two from:	

1. temperature of air in tyre increases / hot / hotter;
 2. particles hit more often/hit harder;
 3. particles moving faster / more energy;
- plus one communication mark for presenting relevant information in a form that suits its purpose

2

1

[11]