

Question number	Answer	Notes	Marks
10 (a) (i)	Any three of MP1. idea of (continuous) random movement; MP2. collisions / impact/eq with (inside) fabric/walls; MP3. idea that force is produced (by bombarding molecules); MP4. idea of pressure as force on an area;	ignore moves freely  allow momentum or NIII argument	(3)
(ii)	any four from:  MP1. pressure inside stays constant;  MP2. pressure difference across the balloon fabric; MP3. (resultant) force acting down on the fabric; MP4. balloon fabric becomes concave / moves downwards; MP5. (free end of) pointer moves up;	allow  for MP1, pressure increases slightly, for MP2 volume of air in can decreases,  for MP5 end of pointer on the fabric moves down	(4)
(iii)	accept any two sensible suggestions e.g. longer stick/lever; narrower (diameter of) can; more stretchy material; less taut material;		(2)
(b) (i)	either it/the reading would decrease;  OR (right end of) pointer goes down;  OR left end of pointer goes up;		(1)
(ii)	more pressure inside the can ;  plus any one from: particles inside can now move faster / have more KE; (hence) particles hit the balloon fabric more frequently;  (hence) particles hit the fabric harder;	allow if seen in (i)   look for idea of time implied more often allow momentum idea	(2)

**Total for Question 10 = 12 marks**